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APPLICATION NUMBER: ***60/112,331***
FILING DATE: ***December 15, 1998***

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A/PROV

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a **PROVISIONAL APPLICATION** under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-81	Type a plus sign (+) inside this box –>	+

INVENTOR(s)/APPLICANT(s)

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TITLE OF THE INVENTION (*280 characters max*)

EURO PAYMENT ROUTING AND INTRA-DAY FLOW CONTROL MODULE

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ENCLOSED APPLICATION PARTS (*check all that apply*)

[ ] Specification Pages [ ] Drawing(s) ___ Sheets [ ] Small Entity Statement

[XX] Other (specify) AS IS SUBMITTED

METHOD OF PAYMENT

Our check No. 081688 is enclosed to cover the Provisional Application filing fee.

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The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government:

[X] No. [ ] Yes, Agency and Government contract number are: _____

Respectfully submitted,

SIGNATURE Michael J. Scheer Date 12/15/98

TYPED NAME Michael J. Scheer REGISTRATION NO. 34,425

[ ] Additional Inventors are being named on separately numbered sheets and attached hereto.

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CHASE TREASURY SOLUTIONS EUROPE

EURO PROJECT

SYSTEMS DEVELOPMENT AND IMPLEMENTATION PLAN

PAYMENT ROUTING AND INTRA-DAY FLOW CONTROL MODULE

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1. INTRODUCTION

1.1 PAYMENT ROUTING AND INTRADAY LIQUIDITY (FTS EURO TASK 5-10)

Chase Treasury Solutions wants to be a major player in the new Euro curreny. To facilitate this Chase FFT FTS will be connected to a number of Euro clearing systems for extra flexibility in making payments. All other Chase branches will then use Chase FFT as their correspondent and send all IN currency payments through FFT FTS.

Likewise all receipts for Chase branches will go from clearing to Chase FFT and Chase FFT will pass them on to the branches.

Consequently FFT FTS needs to be enhanced to include a new payment routing process that will automatically decide on which Euro clearing channel a payment will take.

Also, to be able to use these clearing channels most effectively Chase Treasury Solutions require a way of monitoring the liquidity within the channels. Furthermore they require FTS to withhold payments assigned to a particular channel when the liquidity in that channel has been lost - rather like an IDR system for liquidity.

1.2 THE FTS EURO PROJECT

The Euro analysis work undertaken by the FTS systems group has been based around the Chase Treasury Solutions umbrella plan prepared by Nigel Knight. Within the plan a number of task were identified for analysis by Product Management, Payment Operations and Systems.

The Functional Specifications have been produced to correspond to those tasks on the Umbrella Plan where systems changes were necessary within the FTS system, and other systems which the Chase Treasury Solutions Systems group support (e.g. CHAMPS). Payment Routing and Intraday Liquidity (5-10) is one of these tasks.

Likewise SDIPs are being produced for each of the umbrella tasks (except where some tasks have been combined into one).

1.3 THIS DOCUMENT

This document is the Systems Design and Implementation plan for this part of the Euro project. It describes the design of the proposed Enhancements to FTS that will deliver the requirements laid out in the functional specification that was issued on 31/10/97. The content of this SDIP (and all FTS Euro SDIPs) is slightly different from previous FTS SDIPs as follows: -

1) Due to the very tight timescales and immovable deadlines for the overall Euro project, it was agreed that Section 3.0 Existing System Description would not be completed as vigourously as in the past. The only areas of FTS that will appear in this section now will be those that are not sufficiently documented already, and that required further investigating before changes could be designed.

2) For the Euro project Function Specs were produced detailing the user requirements. There is no point repeating these in section 4.0 Requirements. Instead section 4.0 just contains any changes or additions to the Function spec requirements.

The main functions of the SDIP have then changed slightly and are now as follows :-

- To ensure the system design is technically feasible, and will meet the users requirements.
- To ensure the project will meet the requirements, service level, and scope agreed in the Functional spec.

Ideally, following implementation, this document should be combined with the existing FTS SDS's to keep FTS documentation up to date.

2. MANAGEMENT SUMMARY

2.1 PROJECT SCOPE

This document has considered Chase Euro requirements only. Requirements and changes for JP Morgan (important as they may want to be a Euro Clearing branch) are not covered as so far there has been no input.(NB There is a separate Euro Task for Outsourcing). However, the design proposed (for Chase) in this document is multibranched and so is capable of being used by other (outsourced) banks. To switch it on for other banks will just require static data changes.

All processing that relates to the details of how clearing channels will work are excluded from the scope of this SDIP. There are separate SDIPs for changes required for each clearing system. For example, the following are related to this SDIP but not included:-

Receipts of MT012s
Returns
Formating of clearing messages
Validation (in payment routing) of transactions destined for a particular channel.

2.2 CURRENT PROCESSING

Currently DEM clearing in Germany is the only IN country clearing that Chase FFT is connected to. Through FFT FTS Chase can send EAF and ELS DEM clearing payments. As there is only one clearing to manage in FFT, FFT branch can monitor its liquidity manually using the ABK platform.

Hence in FTS currently, the decision on which clearing mechanism to use does not arise. The clearing is dependent on the currency being cleared. That is, if the payment is DEM then Chase has to go through the Germany clearing via Chase FFT branch. If the payment is Sterling then Chase has to go via Chase UK and Midland to the Sterling clearing in London.

2.3 CURRENT PROBLEMS

This project will not be addressing any current problems. Instead it aims to make Euro payments processing in FTS as flexible as possible to give Chase a competitive edge. It also aims to prevent potential problems that might occur with the introduction of the Euro on 1/1/99.

2.3.1 New Clearing channels

The Euro strategy for Chase requires that FFT branch becomes Chase's Euro correspondent. All Chase's Euro payments will go through FFT branch. Also, FFT branch will have to be connected to the French clearing system , the EBA clearing system, and the Chaps Euro clearing system. Other FTS Euro projects are addressing the requirements for connecting FTS to these clearing systems.

This project will provide Chase FFT with an automatic process that will decide which of these clearing channels is the most appropriate for a Euro payment.

2.3.2 Liquidity imbalances

Releasing a large amount of payments down any particular Euro clearing system may cause an imbalance in the clearing systems such that our payments are not made. This will depend on which channel the other banks use to send credits to FFT. Chase FFT will need to maintain the equilibrium of payment flows in each channel such that we only send payments to clearing systems where we have sufficient liquidity at that time.

If the liquidity in a a particular channel is used up, FFT will need to be able to recognise this and route payments down a different channel.

Also, it is anticipated that a confused situation will exist in the first few weeks and months of Euro in terms of who is using which payment channels , and what their performance is likely to be.

2.4 ALTERNATIVE CONSIDERED.

No alternative overall design co[redacted]was considered (apart from doing nothing). The pr[redacted]affects many areas of FTS and alternative ways of enhancing each of these were considered. However, these were technical options that are discussed elsewhere in this document, and it would be inappropriate to repeat them here.

2.5 PROPOSED SYSTEM

2.5.1 New clearing systems

For ultimate flexibility when making payments FFT branch will be connected to the following EURO clearings

NET:	SNP	RTGS :	TBF	TARGET is a special RTGS channel that is used to
	EBA		Chaps Euro	connect from one RTGS channel to another
	EAF		ELS	RTGS channel.

Also, if we need to use a clearing that FFT is not connected to, our correspondent banks can be used.

2.5.2 Initial Message Processing.

Initial message processing for FFT will be changed such that it can receive in the customers preferred clearing channel. This information will be held in tag 72 of the incomming message. These details will be identified and a new field on FT-TRANS populated.

2.5.3 Straight Through processing and Payment Input

Within straight through processing, new validation will be included to cater for the channel specific details that may be input. No validation will be performed on these details at NON-FFT branches. The details will be passed on to FFT in TAG72.

Validation will be performed in FFT to ensure that the channel details are valid. If not changes will be made so as to limit the need to send to repair.

2.5.4 Risk Control (IDR), CLC, and Marketing Approval functions

EURO payments need to be routed to the new Payment Routing module while all NON-EURO payments will need to be sent straight to Product Gen and not to go through the routing module.

2.5.5 Payment routing

For the bulk of Euro transactions going through FFT FTS the clearing channel they go through will be chosen by a new Payment Routing background task. This process will decide which clearing to use based on a number of factors.

The Routing process will be placed in the FTS Payments flow after IDR and before Product generation (see diagram in Appendix A). It has to go before Product generation as this is where the specific formatting for the different channels is done. It is placed after IDR to ensure that as much validation and general formatting is done on the transaction prior to the routing module.

Payment routing will pick up all clearing transactions. For transactions with payment type of CLG it will try and decide an appropriate route. Transactions with payment route set to a proper value (EAF, ELS, SNP etc.) already will be read by the routing module but the logic within it that decides on payment routes will be bypassed.

For every transaction read the Routing module will add a record to the new flow control database file (FT-FLOW-TRANS) so that the transaction is included in the Flow Control checking process.

2.5.6 Flow Control

Two new background tasks will be provided for the flow control process. These will check the balance for the Clearing member within the channel, and the balance for the Channel as a whole. Depending on whether the balances exceed set limits it will either hold the payment or release the payment to Production Generation.

Payments that are held because the balances have exceeded the set limits will be accessable to Ops by a new online system. By using this online system OPS will be able to :-

a) Select one of the clearing queues to display all the held payments
b) Manually release any of the queued payments (down the channel) if required
c) Manually put a payment back to the payment router (so a different channel can be selected)

Rerouting back to routing module or releasing a payment from a queue will cause the bilateral & channel totals to be updated automatically.

2.5.7 Payment Type flow

Payments with payment type requested
The proposed system will allow the customers to request a specific Euro clearing mechanism to be used for their Euro payment. If this is specified the system will try to honour it but this is not guaranteed. Within payment input and straight throughs validation will be performed to ensure the necessary data for that channel is held on the transaction.

These payments will go into Payment Routing but purely to add records into the Flow Control processing. No actual routing processing will be required as the route is already decided. Liquidity payments will be identified by having a new instruction type of "LQ".

Payments with CLG payment type
If a clearing mechanism has not been requested the initial stages of FTS will set the payment type to a value of CLG (stands for clearing). The payment Router will then decide on the most appropriate channel.

For these Payment Input and Straight Throughs will ensure that there is at least one channel that FFT can use to get a payment to the Clearing Member specified. Because we dont know at this stage which channel will be chosen by the Router, validation will ensure that the necessary transaction data is available for every channel that can be used for this clearing member.

Payments destined for a correspondent
Payments destined for a correspondent rather than a clearing that FFT is connected to will have payment type of CLG. Specific channel validation will not be done on these payments.

These will still be picked up by payment routing and the payment type will be set to CPO. They will need to go through Flow Control as we need to maintain balances for our Correspondent relationships.

CPOs
Any Euro transaction that has a payment type of CPO will not be a clearing item. Hence they wont go through Payment routing or Flow Control (e.g. Credits down the payments leg).

2.5.8 Accounting

All EURO clearing payments will be posted to a wash account in Payment Input, Straight Throughs and Payment Routing and will be posted to the correct NOSTRO account once the ACK has been received from the clearing that was ultimately used to transfer the funds.

2.5.9 Contingency

A contingency function will be provided to capture payments that have either been rejected at the clearing bank or errored at some stage of the payment flow out to the clearing bank, to enable them to be sent back to Payment Input or back to the Payment Router.
This functionality currently exists within FTS for DM clearing and so it will be amended to work for all Euro clearings..

2.6 BUSINESS BENEFITS

2.6.1 Payment Routing

The Payment Routing function will allow FTS to make the most efficient use of the various Euro clearing systems that FFT will be connected to. It will allow Operations to ensure Payments are send by the most cost effective or quickest route to the beneficiary.

If one Clearing system was to crash, it will be posible, via the Payment routing function, to stop payments from going to this channel and instead route to another channel. This should save Operations time and effort trying to recall payments.

2.6.2 Payment Flow Control

Because Euro can be cleared by more than one clearing system it is likely that Chase will get imbalances in the flow of payments against credits in these systems. This will result Chase having large credit balances in some clearing systems, and large debits in others.

If FTS was to continue sending payments out to a clearing that had a large debit balance, the payments may get blocked by the clearing. This would interfere with Chase's ability to make payments quickly and efficiently. The proposed Flow Control system will allow Operations to monitor the positions in the clearing systems and prevent payments from being blocked.

2.7 IMPLEMENTATION PLAN

This project will follow Chase Treasury Services project plan fro all of the Euro.-

Phase	*Start Date*	*End Date*
Systems Design	01/10/97	31/12/97
Coding/Unit Testing	01/01/98	31/03/98
Systems Testing	01/04/98	31/05/98
User Acceptance Testing (including testing with other systems/LOBs)	01/06/98	31/08/98
Implement Code to Production	01/09/98	30/10/98

There is a more detailed plan of all Chase Treasury Solutions Euro projects that has been published separately.

2.8 ASSUMPTIONS/GLOSSA[redacted]DEPENDENCIES/OUTSTANDING IS[redacted]S

2.8.1 ASSUMPTIONS

1. The router will assume that all payment details for the various clearing channels are available at the time the decision of which channel to use is taken. It is up to the individual FTS EURO tasks for the various clearings to ensure that all the required details are captured/available when the product generation is reached. i.e.: When an 'IN'/EURO payment is to be made, the router need not be concerned whether all the necessary details are available or not.

2. All 'IN'/EURO currency payments at the various FTS branches will be sent to FFT for clearing.

3. All receipts for Chase Branches will go from clearing to FFT. FFT will then pass them on to the required Chase branch.

4. Process for holding and updating which clearing a correspondent is attached to is to be handled by FTS EURO tasks for the individual clearing channels.

5. Chase will be notified in advance of any change in the clearing bank members (either new members or ones that are no longer members). As the table info/processing does not have any date processing included, these details will need to be added on the day the bank becomes a member of the clearer.

2.8.2 DEPENDENCIES

1. This Euro sub project is dependent on FFT being successfully connected to the required clearing systems (EBA, Chaps Euro, French) by 1/1/99. The work for these connections is being done under separate Euro sub projects.

2. The timely completion of the build phase of this project is dependent on 6 programmers being available full time for the 3 months January, February, and March.

2.8.3 OUTSTANDING ISSUES

1. When the Euro messages are acknowledged FT58 will back out the credit to the wash account, and credit the nostro account actually used. Should we blott the new nostro account and reverse out the wash account blotting?

2. In the online flow control screens, for EAF and ELS channels should we display the BLZ code or the SWIFT address (if there is one)? If there is no swift address then we will have to display the BLZ code. For all the other channels Swift address will be displayed.

3. Cut-off time processing requirements

4. Processing requirements when link to a clearing is down but the clearing is available.

2.9 APPROVAL RESPONSIBILITIES

Accountable Executive:	Steve Round
Third Party Review:	Matthew Lynch
GPTS Product Management:	Nigel Knight
Business Manager:	Michael Canon
Operations Manager:	Les Green

2.10 GLOSSARY

There are some new terms used in this document that need explaining, as follows.

Clearing-Member - This is the bank that is on the other side of the clearing. Also known as the "Paybank" for Non-X-Border payments and 'Their Correspondent" for X-Border payments. This is the bank that we hold bilateral agreements with. This SDIP refers to this entity frequently and using the terms Paybank or Their Corresponent was found to be misleading and unwieldy. Hence the term Clearing Member is used instead.

Liquidity payments - These are payments used for changing the liquidity in a channel to remove a block. For instance if Chase is long in TBF and Short in CHE then a payment could be processed to move money from TBF to CHE. These payments can only be input by FFT Operations.

3. EXISTING SYSTEM

Because of the large amount of work involved for the Euro and the short time frame, only certain areas on the existing system have been described here. Most of FTS is described sufficiently in existing documentation. However, there are some areas that needed investigation and further documentation by this project due to a lack of existing documentation. The results of this work are presented here for future use.

3.1 PRODUCT GENERATION

This project requires significant changes to the current Product Generation and Acknowledgement process. Consequently some investigation into the current system was done in this phase. See Appendix B for the resultant diagrams showing how stage statuses are used in this area of FTS.

Notes on product gen processing relevant to this project:-

Product generation has two reads of FT-TRANS.

The first read processes live transactions with status values equal to the value on BGD record. These are statuses in the 3700001 to 370009 range. Once processed these transactions are put to 375002 if no more products are required, or to 375001 if more are required.

The second read accesses all the 375001s. For this second read any 375001 records could be read by any of the clones of F08. The distinction between DM clearing products at 375001 or Chaps clearing products at 375001, or any other clearing products is made after the read by checking the Payment Type.

Items that can go to 376 :-

1) Any local currency x border. These occur for any branch, and for any clearing that cannot handle forward valued items. i.e EAF ELS, CPOS for french clearing.

2) Chaps can handle forward value. However, when Chaps closes (time held on table CHP - this is not the Sterling cut off time which is earlier) any Chaps transactions processes after that time need to be held until tomorrow. This is all Chaps not just x border.

DEM and French clearing items are not processed after the clearing cut off so no problem with them.

3.2 OVERVIEW OF DM CLEARING CONTINGENCY

Currently for a payment to be available at DM Contingency it must have failed at some stage in its flow to the clearing. Payments at any one of the following stages can be accessed by the contingency function for reprocessing.

1. At Product Delivery Product to be Sent. - This is for local cross-border payments where on one day an MT100 is sent and the next day a MT202 is sent to the clearing. Therefore in Product Generation the MT100 is generated but the payment is marked to be held overnight, then in the morning it becomes available for Product Generation again and the MT202 is sent out.

2. At Product Delivery Awaiting Acknowledgements. - The message has been generated and sent to MHS but no acknowledgement has yet been received from the ABK workstation. It could be that ABK has crashed so in this situation the payment is just sitting waiting for acknowledgement and not going anywhere.

3. DM Product Delivery Error. - This is where there is an error with the transaction and the message cannot be generated in Product Generation.

4. Rejected by the LZB. - The message has been generated and sent out to the clearing but has been rejected for some reason at the clearing bank (LZB). The FTS acknowledgement processor picks up the status update that is sent back to MHS and marks the transaction as rejected.

In order to process the payments [redacted] he above statuses a screen is provided and from th n there are three options:

1. Route all rejected payments to Payment Input.
   This is where payments that have been rejected by LZB are routed back to Payment Input for reprocessing.

2. Route an individual payment that has been rejected back to Payment Input.
   A FTS transaction reference must be input for this option and it has to have been rejected by LZB. This is routed back to Payment Input for reprocessing.

3. Route other completed payments back to Payment Input.
   A FTS transaction reference must be input for this option and it must be at a certain status i.e. Cannot be processed by MHS or Product Delivery Error. These two statuses occur in Product Generation. This will be routed back to Payment Input for reprocessing.

3.2.1 CURRENT CHAPS CONTINGENCY

The CHAPS Contingency Print function allows payments at Product Delivery that are either waiting to be sent, waiting for acknowledgements or there has been an error with the payment to be contingency printed. This moves the payment on to 'awaiting accounting' status. The message for the payment can be retreived by Merva and manually recreated and sent out again with a different Tag 20 transaction reference.

3.2.2 CURRENT SWIFT CONTINGENCY

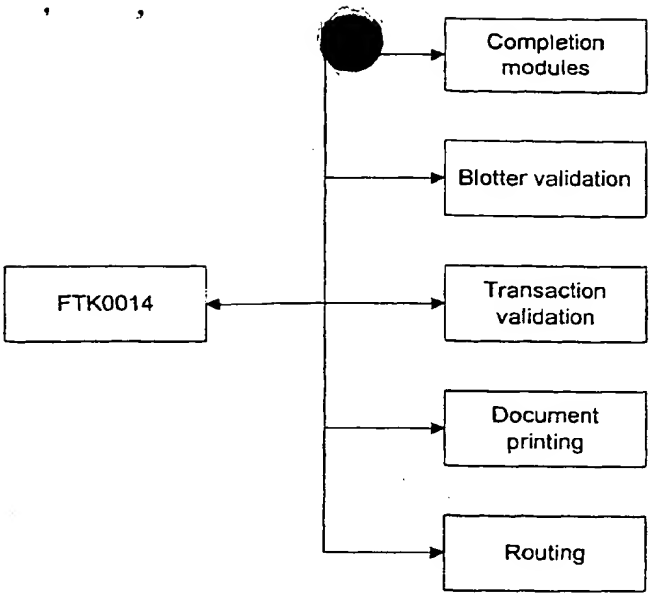
The SWIFT Contingency print function is similar to CHAPS in that it allows a message to be manually printed and the payment moves on to 'awaiting accounting' status, but it covers a wider range of payments to be picked up. Payments at the following statuses can be SWIFT Contingency printed:

1. At Product Delivery products to be sent.
2. At Product Delivery awaiting acknowledgements.
3. At Product Delivery error.
4. DM Product Delivery error.
5. Swift/Telex at Product Generation.
6. Swift/Telex awaiting acknowledgements.
7. Swift/Telex at Product Generation error.

Current processing for contingency will remain. But the DM Clearing Contingency will be enhanced to include CHAPS euro payments and French euro payments.

3.3 *STRAIGHT THROUGH PROCESSING*

The straight through program FTK0014 calls various modules which can be catagorised as follows:-



Program	*Description*	*Decision on when to call*
FTK0015	TRANS COMPLETION -DIRECT PYMT	SOURCE-SYSTEM = 'K'
FTK0016	BLOTTER VALIDATION	After valid return from completion module
FTK0017	TRANS VALIDATION	All code. Validation of payment types so will need to include 'CLG' as a valid payment type.
FTK0019	DRAWDOWN IAT COMPLETION - CCAP	SOURCE-SYSTEM = 'G' <and> MESS-TYPE = '211' <and> BRANCH = '671'
FTK0022	TRANS COMPLETION - TSLIP/RPI	SOURCE-SYSTEM = 'T'
FTK0023	ROUTING MODULE	The last module all transactions go throught
FTK0024	DOCUMENT PRINTING	
FTK0026	TRANS COMPLETION - UK CCAP	SOURCE-SYSTEM = 'G' <and> MESS-TYPE <> '211' <and> BRANCH = '671'
FTK0027	TRANS COMPLETION - UK STERLING SWIFT	SOURCE-SYSTEM = 'R' <and> BRANCH = '671' <and> DB-CURR-CODE = W05-ATBAS-CURR
FTK0029	TRANS COMPLETION (FOREIGN CURRENCY SWIFT)	SOURCE-SYSTEM = 'R' <and> DB-CURR-CODE <> W05-ATBAS-CURR
FTK0032	TRANS COMPLETION - NON UK LOCAL CURRENCY SWIFT	SOURCE-SYSTEM = 'R' <and> BRANCH <> '671' <and> DB-CURR-CODE = W05-ATBAS-CURR
FTK0033	TRANS COMPLETION - NON UK LOCAL CURRENCY CCAP	(SOURCE-SYSTEM = 'G' <and> MESS-TYPE <> '211' <and> BRANCH <> '671') <or> (SOURCE-SYSTEM = 'T')
FTK0036	TRANS COMPLETION - DM CLEARING	SOURCE-SYSTEM = 'Q'
FTK0037	TRANS COMPLETION - SIT CLEARING	SOURCE-SYSTEM = 'Q' <and> BRANCH = '609' <and> W01-TAG20-SIT = 'PP'
FTK0075	PAYMENT RESTRICTION RULES CHECKING	All transactiosn go through this. For OFAC checking.

4. FUNCTIONAL REQUIREMENTS

The main requirements were described in the Functional spec previously issued. This section documents any additions or changes to those requrements documented.

4.1 CHANGES TO FUNCTIONAL SPEC REQUIREMENTS

The numbers below relate to the paragraph numbers in the Functional spec.

3.3.1 ChapsEuro returns
The users now suggest that this will be manual. Furthermore, it is outside the scope of 5-10.

3.4 Customer specification of payment route
The payment route specified by the customer using /RTGS/ELS etc is now the DESTINATION clearing rather than the input clearing. This is because the Input clearing only affects Chase's liquidity. The Destination channel affects the customers liquidity. E.G. if RTGS/ELS is specified Chase could pay thru CHE, and Target, to ELS, and hence to the correspondent bank.

This then allows for clearings to be specified that are not clearings that Chase FFT is connected to. Like in the portuguese example /RTGS/PTE would go Straight Through as these other clearings would be set up on a new validation table.

3.5 Ops specification of payment route
The NB2 should be removed and note that - It must be ensured that FT-TRANS fields are populated consistently whatever the input mechanism.

3.8 Automatic Liquidity checks
Neither Ops nor Credit control (Joff Henley) require the Aggregate Bilat checking process and so this has been removed from the project.

3.8.3 (and 3.8.1) Checking of positions by FTS
The maximum payment amount check mentioned for all the levels of checking is actually only required at the Debit Cap level. The maximum amount is required to be held in static data as an amount rather than a percentage.

The order in which payments are required to be checked has changed. The idea of processing oldest payments first has been dropped. Also the idea of processing held payments first. It was felt that these requirements were of no benefit. Instead smallest amounts need to be processed first, and the urgent first.

3.8.4 Rerouting of payments
Note that when manually rerouting the user must consider the same factors that the Routing module considers (is the new channel on holiday? Is their correspondent connected to it? Etc).

3.8.7 Rerouting of payments
Add d) for selection to reroute (with validation) to a specific channel (as per last but one para of 3.8.4).

3.11 Removal of queues
Note that, due to steps that might be taken to fund a clearing account, the actual balance in the clearing may be different to the maintained balance in FTS Flow Control totals. This will be compensated for by Ops changing the Flow Control limits. A function to adjust the balances is not required.

4.2 ADDITIONAL REQUIREMENTS

4.2.1 Correspondent banking Flow Control

It is required that payments sent out of FFT to correspondent banks (when there is no link to the paybank via EBA etc) must be controlled in the same manner as other Euro payments(IE by the Flow control process).

To Chase FFT, correspondent banks are just another payment channel. The Bilat is still with the Paybank. Hence limits will be held for the clearing member through that Correspondent, and for that Correspondent regardless of which clearing member. The actual clearing that the correspondent puts the payment through is irrelevant to the flow control process.

If ops do not require these payments to be held they can just set the limits to ridiculously high values.

4.2.2 Correspondent banking Credits

It is hoped that the Credits coming back from these ultimate beneficiaries/paybanks will go direct from clearing to Chase FFT. Our remittance instructions will ask for this. However, some banks may not like this (especially if target is expensive) and so may send the credits through our correspondent. There is no requirement to add these latter credits to the Flow control balances. Ops will advise these banks to pay the credits as per the remittance instructions next time.

4.2.3 Customers specifying clearing channel requirements.

No validation will be included to check whether the customer is allowed to specify channel specific information or not. i.e.: Anyone can use the facility. The control will be that the facility will not be actively marketed to everyone. The reason for not validating this data is that OPS do not wish to unduly affect the straight through processing.

4.2.4 Target payments

When we send payments via target to a clearing member, Flow Control must update the balances for the first RTGS and the clearing member. We will not maintain a balance for the destination RTGS.

When FTS deliberately sends a payment via target (like the portuguese example in the Functional spec) FTS should maintain our bilat balance with the Portuguese clearing member. If we dont have a bilat relationship with the Portuguese clearing member the Flow Controller looks for it on FT-FLOW-CONTROL and if not found it follows the procedure below under the title "if limit records are not found by 'Automatic Bilat controller".

4.2.5 Streaming of Flow control

It is felt that there could be a need to stop the Automatic Flow Controllers from processing a particular channel. But this does depend on what Ops procedures are finally agreed. Given this possibility, and the fact that whatever is agreed now could change on 4/1/99, and the possibility of big volumes, it was agreed that the flexibility provided by streaming would be a good idea.

This streaming will be by branch i.e 616 and 190. Within this 616 will be streamed by Clearing group as defined on a new table 'CLG'. Users do not want to be able to single out payments made on behalf of a particular Chase branch.

4.2.6 Online Flow control options

In the Func spec the options available in the Flow control online screens depended on the type of payment eg Ops liquidity payments could not be rerouted.
However, it has now been agreed that to cut development costs these distinctions would be dropped. Instead all options will be available for all payments regardless.

4.2.7 Queue Status enquiry

The queues/catagories displayed in FTS Queue Status enquiry will be changed for 616 branch to include the Payment routing and Flow Control status's.

4.2.8 Updates to the CAR

There is no requirement to show Payment routing or Flow Control statuses on the CA[redacted].

4.2.9 Reset balances to zero overnight

Start of day balances in the LZB will not necessarily be zero. However, the Flow Control balance will not reflect this and WILL be set to zero overnight.

4.2.10 Flow control for RTGS systems

The basic requirement is that:-

All bilats in Nets settlement systems will need to be checked and controlled at bilat level as previously agreed. Most bilats in RTGS systems do not need to be controlled at all at bilat level. However, if a problem arises with a particular bank it is required that payments going to that bank through an RTGS can be controlled if Ops decide it is necessary. Ops may identify or be advised of a problem. They would always be guided by the Treasury Solutions Credit & Business areas.

To meet these requirements the following was agreed :-

Whether the Bilat controller performs the limit check on a payment will be governed by a new flag. This flag will be held at Bilat/channel level (a record for each institution). It will be set to Yes (by Ops) if the bilat (within that channel) needs to be controlled, and to No if it doesnt.
If it is set to N all the bilat controller will do for that bilat/channel is maintain the balance(for MIS), and no payments for that bilat/channel will ever get held.

In most cases bilats within RTGSs will not need controlling and so this flag will be set to N for them. Bilats in Nets will need controlling and so Ops will set the flags to Y for those.
(the system will auto set the record based on the record set on the Channel Control table. NS & Correspondent channels are controlled, RTGS are NOT.)

4.2.11 If limit records are not found by the system

There will be times (especially Jan/Feb 1999) when a payment is processed for a bilat/channel combination that hasnt had a limit record set up yet. For these cases the Automatic Bilat Controller will set a limit record up. What value it sets the new flag to on this created record will depend on the default for the channel (indicated by a flag on the channel static data). If in general the channel is a controlled channel (usually Nets) it will set the flag for this bilat to controlled = Yes. This default setting will be held against each channel on the table that holds channel info (ECC table).

Hence if the default for the channel is Yes (NS or Corr)the bilat controller will :-
set the Bilat/channel flag to Yes on the new limit record
set the limit on the new record to -999,999,999,999,999,999.99 (so that further payments get held)
put this payment to the hold queue

If the default for the channel is No (RTGS) the bilat controller will :-
set the Bilat/channel flag to No on the new limit record (so that future payments dont get controlled)
set the limit on the new record to zero
release this payment tothe Debit cap controller

If a credit arrives for a bilat/channel that doesnt have a limit record then one will get automatically set up. The limits and flags will be set in the same way and with the same considerations as above.

A report of these may be required but this is to be the subject of MIS discussions later on.

4.2.12 Product Generation - ABK payments made with Telegraphically indicator.

Currently payments over 300,0[redacted]M - Ops look for information in TAG72 where th[redacted]mer has requested the instruction to be paid 'TELEG[redacted]ICALLY' this is a means of prioritising the payme[redacted] once they have been sent to the ABK. If details are found, Bournemouth Ops phone FFT Ops who then flag the payment as an ELS telegraphic on the ABK box. No system changes will be required for this process.

4.2.13 Clearing channel data on direct and reimbursment.

No channel specific details (/NET/ or /RTGS/) will be sent out on the outgoing messages from FFT.

For NON-FFT branches that need to send a Direct with reimbursement instruction: Only the reimbursement instructions sent to FFT (EURO payments) will have the channel specific details mapped to TAG72.

For NON-FFT branches that need to send a Direct only: The Direct message sent to FFT (EURO payments) will have the channel specific details mapped to TAG72.

4.2.14 New instruction type for Liquidity Payments

A new Instruction type for the liquidity payments will be made available to FFT payment input. New code = 'LQ'.

4.2.15 Processing NOT performed by the Payment Router.

- Customers may want FX to go through EBA but other payments through a different channel, and they will not want to set this in TAG72 on every transaction. No changes will be made for this request to FTS. Use Swift TIDS?
- Swift , SSI Database. As this facility was not going to be available till the 1st or 2nd quarter of 1998, the inclusion of this request in the current EURO project was not possible.
- FTS does not need to maintain a history of channels tried. The reason for this information was that if a customer had requested ELS but because of certain factors (e.g.: ELS had crashed), we had to use TBF to affect the payment, we would need to have some indication that we had tried the specified channel. The conclusion reached from discussions was that we do not need to maintain channels tried because we do not guarantee the channel specified and if we get complaints, we can obtain various details from the channel authorities themselves (e.g. can get unavailability info from EBA etc).
- May have audit details available for the flow control process, but this will not be processed by updating the stage status history details on the FT-TRANS record.
- Any hold ups in the channels (operations could close the channel if the queue to the channel becomes unmanageable)
- Urgent transactions; no automatic process to route transactions down a clear channel as opposed to a busy channel
- Channels Already tried.

5. PROPOSED SYSTEM

5.1 SYSTEM OVERVIEW/CONCEPTUAL DESIGN

5.1.1 Introduction

For the bulk of Euro transactions going through FFT FTS the clearing channel they go through will be chosen by a new Payment Routing process. This process will decide which clearing to use based on a number of factors.

The Routing process will be placed in the FTS Payments flow after IDR and before Product generation (se diagram in Appendix A). It has to go before Product generation as this is where the specific formatting for the different channels is done. It is placed after IDR to ensure that as much validation and general formatting is done on the transaction prior to the routing module.

Before these Payments hit Payment routing their Payment type will be set to a default value of 'CLG'. Then Routing will change this to EAF, EBA etc. once the route has been decided.

There will still be some Euro transactions however that will have their clearing decided earlier on in the initial stages of FTS. These payments will be

a) those destined for a correspondent bank because the Clearing member bank is not connected to the same clearing mechanisms as the Hub. These will be CPOs.
b) those payments on which the customer has specified the clearing to be used.
c) Manual payments that have had a particular clearing specified

Payment routing will pick up all clearing transactions. For transactions with payment type of CLG it will try and decide an appropriate route. Transactions with payment route set to a proper value (EAF, ELS, SNP etc.) already will be read by the routing module but the logic within it that decides on payment routes will be bypassed.

For every transaction read the Routing module will add a record to the new flow control database file (FT-FLOW-TRANS) so that the transaction is included in the Flow Control checking process.

The flow control process will check the state of various Flow Control balances and either hold the payment (because one of the balances would exceed the limit if we made this payment) or release the payment to Production Generation.

Payments going out to correspondent banks other than Chase FFT will have a payment type of CPO. Flow Control will treat each Correspondent as a separate channel and will maintain a balance for each.

An online system will be provided for the Users to control the payments held in the Flow Control queues. They will have various options for removing payments from the queues, like rerouting to a different channel, cancelling the payment totally, or sending the payment back to repair.

See diagram in appendix A for flow chart of the main FTS areas and where the new processes will fit in.

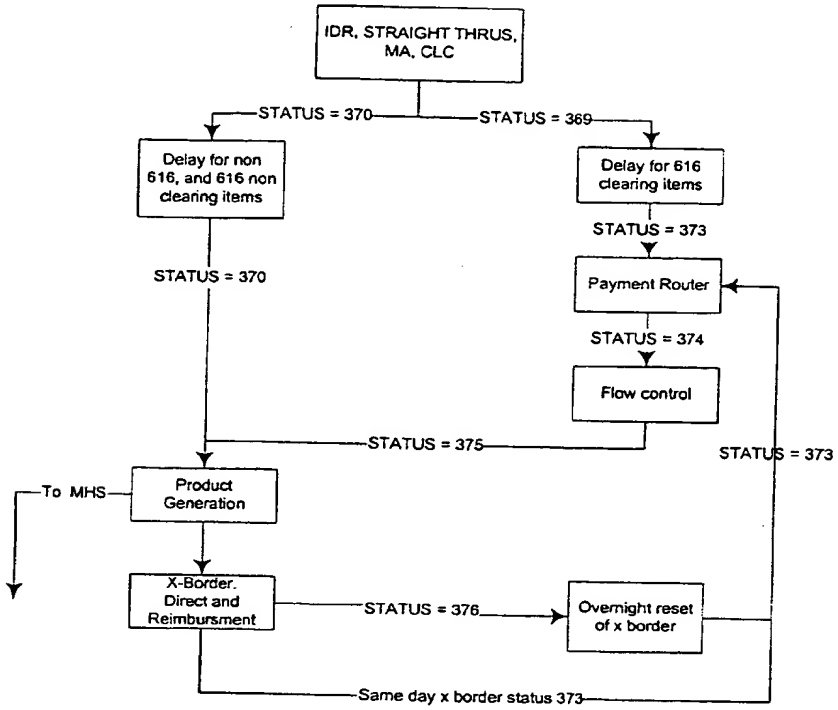
5.1.2 Stage Status's

As there will be three new 'stages' in FTS - Routing and Flow control - new FTS Stage Status values will be needed.

369xxx - In delay awaiting payment routing
373xxx - in or awaiting payment routing
374xxx - In or Awaiting Flow control

These will only be needed for items that go through the new processes. Items that dont, like 616 cheques, will go straight to 370 (In Delay awaiting prod generation)and then to 375 as at present. Likes wise all transactions for all non 616 branches will go straight to 370.

Note that 369 is a delay status. 616 clearing payments will be delayed before Payment Routing instead of before Prod generation (see later for reasons).



5.1.2.1 *Active/Inactive transactions and Delay*

Currently transactions are 'live' and therefore updateable at any stage up to and including 370 delay. After this they are inactive and cannot be changed or removed.

For the new system Euro clearing transactions will need to be inactive when in the Flow Control process. Hence the payment Router will set transactions to Inactive. That is TRAN-LIVE will be space and TRAN-INACTIVE will be set to a new value of 07.

Because of this a new Delay stage (status 369) will be put just before the Payment routing function. This will give Ops a last chance to change a transaction before it becomes irrevocable. These transactions will not then enter the current 370 delay stage as there is no point delaying them twice (and by then they are already inactive). Below is an overview of the changes required to FTS to process the new control totals for Payment Routing.

5.1.2.2 *Local currency Cross border payments*

Local currency cross border payments have two parts. On the first day they generate a MT100 swift and on the second day they generate a clearing item. These transactions need to be included in the Payment routing and Flow control process on the day that the clearing message is to be generated.

Initially then, the transaction will bypass the new processes and go straight to status 370 and product generation. The over night batch process that currently puts them back into product generation via status 375 will instead put them into Payment routing via status 373.

The status's that X border will now go through are :-

Status	Description	TRAN INACTIVE
370xxx	- In Delay	00
375002	- Product generation Awaiting acks	01
376xxx	- Overnight hold	01
373xxx	- In or awaiting Payment Routing	07
374xxx	- In or Awaiting Flow control	07
375001	- In Product Generation	01
375002	- Product generation Awaiting acks	01

Note that because of the 2 part nature of x border payments they will never go to TRAN-INACTIVE of 07. Instead they go straight from 00 to 01 and stay there until batching (06).

This means that 'CLG' payment types can go direct to Product Generation as well as going to Payment Router.

Same day local currency cross border payments do not need to go through this process. Instead they will go straight to payment router (Note that this means the direct message will not go out until the clearing side of the transaction has been approved through the flow control process)-

369xxx - In Delay awaiting Payment Routing
374xxx - In or Awaiting Flow control
375001 - In Product Generation
375002 - Product generation Awaiting acks

5.1.2.3 *Direct plus Reinbursements*

616 Transactions that will generate direct and reimbursement messages (apart from local x border above) will go through payment routing and flow control directly. That is they will go 369, 374, and 375, and will not go through 370.

5.1.2.4 *Transaction validation in prod generation*

In the current product Generation transactions with Stage Status 370xxx go through various validation. Transactions with Stage Status 375xxx do not, because they used to be 370xxx and so have already been validated.

As Euro clearing products will be set to 375 before they reach Product Generation they would potentially miss this validation. Hence the validation will be copied and included at the end of Flow Control. It cannot be put before the held queues because one of the checks is ensuring that the DOE is still open.

5.1.2.5 *Transaction Inactive stat*

A new TRAN INACTIVE status of 07 will be introduced for payments in the Payment Routing or Flow control processes. This will be maintained as follows:-

Payment routing
Payment Routing will set Tran inactive to 07 on every 369 record it reads. It will update the control totals for 07. For every 373 record it will not change Tran Inactive as it is already set to 07 (see later).

Product Generation
Records read with Stage Status of 370 will currently be active and so Tran inactive be set to space.
Records read with Stage Status of 375 will either already be 01 or 07 (if from Flow control).

For all records read Product generation will set Tran Inactive to 01 if not already at that value.

Overnight batch
The x border over night batch program will be sending items 616 clearing items back to Payment routing and so will set Tran Inactive back to 07 for these.

Online Flow control
If an operator sends a payment back to repair the online programs will change Tran Inactive from 07 to space and make the payment active again.

If an operator sends a payment back to payment Router Tran Inactive will not need to be changed as it is already at 07.

Acknowledgement processing
If an operator sends a payment back to repair this process will change Tran Inactive from 07 or 01 to space and make the payment active again.

5.1.3 Payment Type flow

Euro payments in Chase FFT will go through Payment routing and Flow Control, some will go through neither, and others will go through just one of these. Which path a payment takes is dependent on when the Payment type (clearing channel) is specified and by whom.

Payments with specified payment route

Some Payments will have the payment route specified either by the customer on the incoming message, or by Operations during manual input. Within payment input and straight throughs validation will be performed to ensure the necessary data for that channel is held on the transaction.

These payments will go into Payment Routing but purely to add records into the Flow Control processing. No actual routing processing will be required as the route is already decided.

Liquidity payments will be identified by having a new instruction type of "LQ".

Payments with CLG payment type
Payments that do not have the payment route specified by the customer or by Ops will have Payment Type set to CLG. For these Payment Input and Straight Throughs will ensure that there is at least one channel that FFT can use to get a payment to the Clearing Member specified. Because we dont know at this stage which channel will be chosen by the Router, validation will ensure that the necessary transaction data is available for every channel that can be used for this clearing member.

- The Stage status will be set to 369013 (or 370003 if next day x border).
When they are released from Flow Control the Stage Status will be set to 375.

Then product generation will p[redacted]ese up as usual. (With new prod generation tasks [redacted]e new clearings? E.g. F08H for ECU).

Payments destined for a correspondent
Payments destined for a correspondent rather than a clearing that FFT is connected to will have payment type of CLG. Specific channel validation will not be done on these payments.

These will still be picked up by payment routing and the payment type will be set to CPO. They will need to go through Flow Control as we need to maintain balances for our Correspondent relationships.

CPOs
Any Euro transaction that has a payment type of CPO will not be a clearing item. Hence they wont go through Payment routing or Flow Control (e.g. Credits down the payments leg).

5.1.4 Payment Routing Process

A new background task will be provided that will decide on the channel to be used for each 616 Euro payment. This task will not be streamed. It will process transactions at the new stage status of 369, but only after they have been through a Delay period. It will also process next day x border items at stage 373, and these will not be delayed.

If a valid channel is not available for the payment the router will send the payment back to repair.
In order to decide on the preferred channel, the router will have to access new static data as follows:-

Clearing Channel details.
As already mentioned both payment input, straight through processing and the router module at FFT will need to validate and process using channel specific information. These details will be held in a new table that will hold all the possible channels that can be used to clear Euros. This will mean that the records will include not only the channels to which FFT will be a member of.

These table records will also be used to control which channels are available (open) for FFT at any point in time. The records will also contain information that may be used by the router when deciding on the channel to use for the payment. (e.g.: any minimum-volumes/values for specific channels, cut-off times etc.).

See the detailed design section for more information.

- **Clearing Channel Member details and preferred routing method.**
  Within payment input, straight th[redacted]h and payment routing, FTS needs to be able to ch[redacted]hich clearers a bank is a member of. These details will be [redacted]on a new table (CMD) that will be maintained eit[redacted]nually or electronically.

  The new table will also hold the details on the preferred routing method if the bank is not a member of a clearing to which FFT is a member.

5.1.5 The Euro Flow Control Process

5.1.5.1 Limit checking

Once a payment has been through Payment Routing it will enter the Flow Control checking process. Here the balances and limits at each clearing member bank, and debit credit cap will be monitored.

There will be one program for each Flow Control check I.E. 2 programs in total. Each program will be designed such that it can be cloned by payment type or by a group of payment types. Depending on what static data is set up, one clone processing everything could be implemented, or a maximum of one clone per payment type could be implemented (seven payment types times 2 programs = 14 new background tasks), or payments types can be group together for processing by one clone (e.g. one clone for both EAF an ELS).

Each clone will operate on a timer basis. That is the tasks will not be kicked off by any other process (e.g. IDR, or the previous flow program). Instead, throughout the day they will turn themselves on, process any payments awaiting their attentions, and then go back to sleep. Their sleep period will be a fixed duration which will be parameterised and therefore changeable by Ops. It will also be possible to set a critical time period during which the sleep period will be less. Up to 6 critical time period can be set per clone.

The arrival of a credit will not trigger the Flow Control process. Instead the tasks will just wake up after their sleep periods as described above. This is inline with how FTS IDR works.

Payments held in the Flow Control queues will be rechecked only when the tasks wake up. There will not be any special processing for rechecking held items e.g. when a credit arrives. However, this will actually mean that they get processed slightly before new transactions (within the Bilat) because they will be older and the oldest will be checked first. There is no requirement to check held payments more often than this.

The Flow Control process currently only applies to Chase FFT branch. It may however, apply to other clearing branches like JP Morgan. If this is the case then the process will be multi streamed and we will have one process per clearing branch.

If one of the Flow Control tasks abends or finds an error, the error will appear on FTS Queue Status enquiry in the usual way.

5.1.5.2 Balance update for credits

When a credit comes in a process will be needed to update the relevant Flow Control balances. To do this it will have to identify which clearing the credit came from, and which bank sent the payment into clearing

Once this is known the process will be able to access the balances that need to be updated :-
a) the balance for the Bilat relation ship in that clearing,
b) and the balance for the Debit Cap for that channel.

Initial Message processing (FTK11) will do this updating. This is earlier in the FTS process that the credit updates for IDR. IDR has to wait until FTS is certain that the credit will update a particular customer account number. Flow control however, is not interested in the Credit account number, it is only interested in the fact that a credit came in from a certain clearing (I.E the Debit account number).

5.1.5.3 *Storing of Flow Control limits*

These will be stored on a new FTS table. These limits will be keyed on the clearing member bank to which we send the instruction (In FTS terms, this will usually be the PAYING BANK, though for local currency cross border it may be THEIR CORRESPONDENT Bank) and the clearing channel.

That is, the full key will be

Clearing member Swift Address
Payment type (ELS, TBF, CHE, etc. or the swift address of our correspondent bank)

and the record will contain :-

Balance Limit agreed
Current balance
Number of payments held due to this check
Maximum payment amount allowed

The limits need to be updateable quickly in a contingency situation. Also, although the Limits should be updateable, the balances, and number of payments held figures should not. Hence the usual table maintenance system GPPM is not appropriate for this data. Instead this table will be maintained by a new online application.

5.1.6 Euro Flow Control (Online system)

An online function will be provided for enquiring on and controlling payments held at the various stages of flow Control checks. Access to this functionality will be via either one of two applications, Enquiry or Update. Users with Enquiry access will only be able to enquire on the Held payments in Flow Control. Users with Update access will be able to monitor and control payments in Flow Control. All Held records on FT-FLOW-TRANS will be available for Enquiry and/or Update.

By using this online system OPS will be able to :-

a) Select one of the clearing queues to display all the held payments
b) Manually release any of the queued payments (down the channel) if required
c) Manually put a payment back to the payment router (so a different channel can be selected)

Rerouting back to routing module or releasing a payment from a queue will cause the bilateral & channel totals to be updated automatically.

5.1.7 Product Generation

Changes for 375
At the moment every transaction will go to product generation with stage status 370. Some transactions will also go to product generation a second time with stage status 375. Product generation therefore does various processing on 370 transactions that it does not do on 375s: -

Validation of :-
Account status
DOE closure
Product status integrity
Set PROD-DELIVERY-IND to 1 (so prod gen will read these 375 records)
LICR updates

As the majority of Euro clearing transactions will now bypass status 370 and go straight to 375, changes must be made to ensure this processing is done on every transaction. Hence this validation will be copied into a new module FTK0093 and put at the end of Flow control.

Changes for new payment type of CLG

Product generation will need cha[redacted]slightly to process payment type of CLG. These [redacted]ve a stage status of 370003 so that they will get processed by [redacted]C. The CLGs that hit Prod Gen will be next day local currency cross border only (these initially bypass the Router and Flow Control). Prod gen needs to process them and then send them back to router (via 376) as CLG.

5.1.8 Euro Payment Contingency (Online system)

A contingency function is required to capture payments that have either been rejected at the clearing bank or errored at some stage of the payment flow out to the clearing bank, to enable them to be sent back to Payment Input or back to the Payment Router.
This functionality currently exists within FTS for DM clearing.

Currently there is only one option for DM Clearing. This will be changed so that operations can either go into DM Clearing, CHAPS clearing or French Clearing contingency functionality.

DM Clearing Contingency.

Current processing will remain as is. There will be a new option added where a payment(s) can be sent back to the Payment Routing module.

CHAPS, French Euro and EBA Clearing Contingency.

The option to CHAPS contingency print will still be available for CHAPS payments but a new option will be available from the new generic 'Clearing Contingency' function for both the French and CHAPS and EBA payments to:

1. Send all rejected payments back to Payment Input for repair.
2. Send an individual rejected payment back to Payment Input.
3. Send other payments back to Payment Input (i.e. Product Delivery awaiting acks etc.)
4. Send one or many payments back to the Payment Router.

5.1.9 Accounting changes for EURO clearing payments.

The Preferred Nostro for EURO payments at FFT will be changed to be a EURO Wash account. This will mean that all EURO payments that indicate the use of the Preferred Nostro will be processed through a common wash account. Payments could still be processed to NCU Nostro accounts in Payment input by the user entering the required NCU Nostro account number.

Once the ACK has been received for the product sent, the correct Nostro account will need to be updated on the transaction details before the transaction is sent to awaiting batching (accounting update). The nostro accounts will be held on the ECC table per clearing channel.

5.1.10 EOD

Each department using FTS for processing transactions currently has to run an EOD function within FTS to check that all transactions are in a satisfactory status and to flag the department as closed within the system. This will have to be amended to look for payments in the Flow Control or Payment Router queues.

On finding payments in these queues the EOD will not be allowed. In these situations Ops will have to cancel the payments.

5.2.1 Table ECC - Euro Clearing channel information.

Both payment input, straight through processing and the router module at FFT will need to validate and process using channel specific information. These details will be held in a new table (ECC) that will hold all the possible channels that can be used to clear EURO's. This will mean that the records will include not only the channels to which FFT will be a member of.

These table records will also be used to control which channels are available (open) for FFT at any point in time. The records will also contain information that may be used by the router when deciding on the channel to use for the payment. (e.g.: any minimum-volumes/values for specific channels, cut-off times etc.).

See Table description is section 5.4. for table details and layout.

New routine will be generated to create and maintain new records on the table. FT4716. See document 4716.DOC

5.2.2 Table CMD - Clearing channel member details and preferred routing method .

Within straight through, payment input as well as in payment routing we need to be able to check which clearings a bank is a member of. To cater for this, a new table file needs to be set up that will allow for the maintenance of channel membership by paybank. Each Paybank/Channel combination will be held on a different record on the table file. This will allow for easier prioritising of channels when a paybank is a member of more than one clearing. A new module (FT4717) will be generated to create and maintain the details on this table.

Paybank/Channel information can either be manually captured or an electronic batch process may be possible to capture channel membership details onto the new table from existing table information. If the electronic method is chosen, any changes to the clearing members will need to be made to the table from where the details are copied. Special cases where details need to be added to the CMD file during the day will need to be captured and verified by specified person(s) who will need to ensure that the table where the details are obtained from is also updated.

To help limit the complexity of the coding in the router and other parts of the system and to have a common interface to the paybank/channel details, it is planned to have all channel member details held on this single table file and to have each channel details conform to the same standard record format. This means that for example, German clearing member information, the current BZL codes will need to be converted into their SWIFT codes before updating on the new table. This process will need to be performed any time the underlying data changes.

The loading of a clearing's members can be processed either manually or through the use of a batch program. The latter only being possible if the details already exist in some form on the mainframe or the details are provided electronically from the clearings themselves. For situations where the details can be automatically loaded, a new batch program will be required to load the details onto the new CMD table. Presently member details are maintained for EBA/ECU (assumption is that EBA/EURO will hold details in the same format) as well as EAF/ELS on the FTS-TABLES and will therefore be loaded by a new batch process onto the CMD details. The field CLEARING-MEMBER-CAPTURE will be used to identify which of the channels will be captured manually and which will use the electronic batch method.

The new table will also hold details relating to the preferred routing method if Paybank/'Their Correspondent' is not a member of a clearing which FFT is a member of. If this situation arises, a new record will need to be added to the CMD table records that will indicate whether the Paybank/'Their Correspondent' wishes to receive its funds (from CHASE FFT) through TARGET or through a CHASE correspondent in the clearing they are a member of. These details will need to be maintained manually through a new application that will validate that if the paybank is a member of a clearing which FFT is a member of (i.e. record exists for paybank/channel combination), that a preferred payment method record is not entered.

Preferred payment method record will either be Paybank/'TGT' for routing payment through TARGET or Paybank/'COR' if a correspondent should be used. The EEC table will not have a record ofr TGT or COR. The validation for the CMD table will accept 'TGT' and 'COR' as valid channel details.

Validation needs to be included to:

- Ensure that when TGT or C[illegible]s input that the 'Destination Clearing' is supplied.
- Validate that the destinatio[illegible]ing is valid (i.e.. record on the channel file)
- Validate that the destination clearing for a TGT record is a valid RTGS clearing.

5.2.3 FT4701 - New Batch program to load clearing member details for EBA/ECU (EURO)

Member banks of EBA/ECU are currently held on file in the ECB table (FTS-TABLES). A new batch program will be generated to copy the required ECB details to the new CMD table.

When changes are made to the ECB table the batch module will need to be run to update the new CMD details.

The method used to hold clearing member details is to specify the SWIFT address of the member bank or a portion (first 6/8 etc. characters of the SWIFT address). If the table specifies a portion of the SWIFT address, this would mean that any given SWIFT address whose first x characters match with the first x characters specified on the table would be regarded as a member of EBA/ECU. Before a SWIFT could be regarded as a member of EBA/ECU, the details on the ECB table need to be searched further as some exceptions to the general details supplied also exist. This is explained easier by way of an example.

A small extract from the current ECB is shown below:

Swift Member code	Exception indicator
DEUTDEFF	
DRESDE	
DRESDEBS	E
DRESDEFH	E
ESPCESMM	

Assuming we have two SWIFT address, DRESDEFT001 and DRESDEBS001, to validate if they are members of EBA/ECU clearing.

Example 1: DRESDEFT001. Masking to the record DRESDE which would indicate that the address is a member. Further checking however still has to be performed to ensure that there are no exceptions to this data. Two exceptions are found indicating that if the first 8 characters of the SWIFT are either DRESDEBS of DRESDEFH then this is NOT an EBA/ECU clearer. In this example, as the SWIFT does not match either of these cases, DRESDEFT001 is a member of EBA/ECU.

Example 2: DRESDEBS001. Masking to the first record DRSEDE indicates that the address is a member of EBA/ECU. Validating further a record DRESDEBS is found which masks to the SWIFT being checked and as the exception indicator is set this would mean that the SWIFT being validated is NOT an EBA/ECU clearer.

To limit the complexity of the router and other modules, member details of the EBA/ECU (EURO) would need to be loaded by a batch routine that would look at all the possibly SWIFT addresses (could this be narrowed in any way to only the possible EURO clearers) and validate whether it is an EBA/ECU member. If found to be a member, then the full paybank address and channel details would be added to the new channel member table.

ECB TABLE (ECU clearing members) See appendix B.

```
Program : FT3282N1 - Dete       ECU clearing banks from SWIFT address.

Program : FT3282P1 Version : 2
 0010       1 #FT3282-PARMS
 0020       2 #SWIFT-ADDRESS                  A   12
 0030     R 2 #SWIFT-ADDRESS
 0040       3 #SWIFT-BANK-COUNTRY             A    6
 0050       3 #SWIFT-CITY                     A    2
 0060       3 #SWIFT-BRANCH                   A    3
 0070       2 #CALLING-MODULE                 A    8
 0080       2 #USERS-DOE                      A    3
 0090       2 #EBA-CLEARING-BANK-YN           A    1 /* Y=CLEARING BANK or N=NOT A CLEARING BANK
```

5.2.4 FT4702 - New batch program to load clearing member details for German clearing (EAF/ELS).

Member banks of EAF/ELS are currently held on file in the ECB table (FTS-TABLES). A new batch program needs to be generated to copy the required ECB details to the CMD table.

German clearing do not use the SWIFT address to identify the members of their clearing but use a BLZ code instead. As the new channel member table will be keyed on the SWIFT address, the BLZ code will need to be converted to the corresponding SWIFT address to use before the store to the table.

Details on which bank is a member of German clearing and their associated SWIFT address are currently held in the BCL and SWC tables. (FTS-TABLES). These details will need to be loaded onto the new channel member table using the paybank SWIFT address/channel details.

The SWC table contains the Swift codes for all the banks that are either directly or indirectly linked to German clearing. This table data will be used to populate the CMD table.

5.2.5 Initial message processing - FTK0011

5.2.5.1 Update flow control details for incoming credits.

This will have to be changed to update the Flow Control balances for Credits. It will identify the Channel and the Bilat that the credit came through. Once these are established it can read the two balance records on FT-FLOW-CONTROL using the keys :-

Key field names	Values for first record	Values for 2rd record
Bilat identifier	identifier for this Bilat	default value XXXXX
Channel	ELS, CHE, or TBF	ELS, CHE, or TBF

and update the balance, and the no and amount of credits

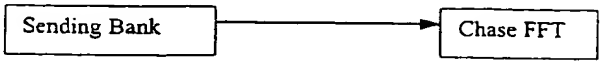
If a credit comes in for a Bilat that hasn't been set up with static data FTS will create the required record as per the requirements laid out in section 4.0.

If a credit comes in from a correspondent rather than direct from a clearing member, no balances will be updated.

Dm Clearing messages:
For DM clearing messages the clearing channel and the paybank will be identified in the same field on the INCOMING-MESS-RECV-FTS file, APPLICATION-AREA-1.
Clearing channels will be either 1.) GA for EAF
2.) GT for ELS (urgent)
3.) GE for ELS (not so urgent).
Paybanks will be identified by the BLZ code.

Chaps/EBA/French Clearing [redacted]sages:
For all other clearing messages [redacted] clearing will be identified by the DELIV-SYS-ID [redacted]e paybank will be identified by the sender's swift address in STID on the INCOMING-MESS-RECV-FTS file.

5.2.5.2 Clearing channel specific details.



Tag 72 details for transactions received by Chase Frankfurt can have one of the following possible contents:

- No channel specified
- /NET/ or /RTGS/
- /NET/ccc or /RTGS/ccc
- /NET/nnn or /RTGS/nnn

ccc = Channel to which FFT is a member
nnn = Channel to which FFT is NOT a member (Will not be catered for by FTS.).

For FFT processing, need to set the payment type to 'CLG' for those incoming transactions that do not have TAG72 channel specific information present.

FTS will allow for the flexibility to accept channel specific information (e.g.: /RTGS/ELS) to be processed from CCAP, SWIFT, MULTICASH, Direct Payment and manual payment instructions.

FTS will search for the two new keywords /NET/ and /RTGS/ in TAG72. If the customer inputs these keywords incorrectly as say /TRGS/ FTS will not recognise it as a keyword and instruction will processed as a 'CLG' payment-type.

If channel specific details are found in TAG72, a new field FT-CLEARING will be populated with the relevant details. FTK0011 needs to examine each TAG72 line (1 thru 6) for the keywords /RTGS/ and /NET/ if found update FT-CLEARING. If the channel type keywords are found, FTK0011 needs to ensure that if channel specific information is also supplied that this is also updated to the new field. Only the first find of a keyword will be processed. If two clearing channel details are input by the customer only the first will be used.

NB: If FFT is NOT a member of the channel specified, the channel specific information will be removed and the instruction will be processed as a 'CLG' payment and the router will honour the channel type details only.

E.G.: /RTGS/ELS (If the character after the /RTGS/ is not a space and there are at least 3 characters, FTS will assume that channel specific information has been supplied. If not, then only the channel type will be populated.

Examples :

Incoming TAG72	*FT-CLEARING*
/RTGS/ELS	/RTGS/ELS
/RGTS/ELS	Blank
/NETEBA	Blank
/NET/ EBA	/NET/
/NET/EBAEAF	/NET/EBA
/NET/EBA/RTGS/ELS	/NET/EBA
/RTGS/QWE	/RTGS/ (assuming QWE is not found on ECC table).

5.2.6 Payment Input - Gener

Customers must be able to specify the channel they wish to process a payment through. A new field will be required to capture and maintain this detail. This new facility will not be actively marketed to customers, but will be provided to give flexibility to allow the specification of any of the clearing channels to which FFT will be linked.

If the customer is not concerned about which clearing the payment is to be processed through, the payment-type will be set to 'CLG'. For this default payment-type, once the transaction gets to the router phase, the system will decide (based on various rules), which of the available clearing channels the transaction will be processed through.

New Fields required for payment input:

FT-CLEARING (A9) - Only available at NON-FFT branches. (e.g./RTGS/xxx or /NET/xxx)
URGENT-IND (A1) - Only available at FFT.
FT-TARGET (A1) - Only available at FFT. Not input by user but is an internal field for FTS.

'CLG' will only be allowed for EURO ('IN' currency) transactions and will only be made available to Chase FFT valid in FFT. Instructions initiated in FFT could be for any currency including NON-EURO currencies (e.g. USD). These instruction would not be sent to the router as it would be a 'CPO' to 'Our' Correspondent for that currency.

If 'CPO' is input at payment input, FTS will assume that this is NOT a clearing instruction and will not be processed through the router and flow control modules. If the instruction is to be processed though a clearing channel, the payment-type will need to be input as 'CLG' or one of the clearings to which FFT is a member.

Each of the clearing channels will have a unique FTS payment type assigned. The 6 current clearing channels being:

Description	Payment Type	Status
German NET clearing	EAF	Current
German RTGS clearing	ELS	Current
French NET clearing	SNP	New
French RTGS clearing	TBF	New
Chaps EURO RTGS clearing	CHE	New
EBA/EURO NET clearing	EBA	New

The following discussions affect both the single and three screen payment input processes. Issues that affect only single or three screen inputs are discussed in later section below. All general comments are concerned with processing at FFT. The only Non-FFT changes are discussed in the three screen payment input section for Non-FFT processing.

5.2.6.1 *Instruction type for Liquidity payments.*

A new Instruction type for the liquidity payments will be made available to FFT payment input. New code = 'LQ'. If the instruction type was set to 'LQ' the payment-type can not be 'CLG' and would have to be an RTGS system (obtian Clearing type from ECC table).

5.2.6.2 *Urgent Indicator.*

This input will only be available in FFT (Branch 616) and is a way to change the processing priority for transactions processed through the flow control process. Once a transaction has processed through the router and has been passed to flow-control, all Urgent transactions will be processed before any Non-Urgent transactions. (see Flow-control document for more detailed discussion).

Note the router will NOT do any special processing for the urgent indicator.

5.2.6.3 *Correspondent details required.*

If the payment type is set to 'CLG' (default payment type requiring the router to decide on the channel to be used), then Paybank/'Their correspondent' details need to be obtained as this detail will be used to decide on whether Paybank/'Their correspondent' is a member of a clearing channel of which FFT is a member. If no Paybank/'Their Correspondent' details are entered, payment input will need to attempt to automatically derive Paybank/'Their Correspondent'. If the Paybank/'Their Correspondent' cannot be derived, then the transaction needs to be sent to repair so that the details can be input. (FT-Correspondent could also be updated by OPS so as to allow auto-derivation).

Current validation at payment input includes a check that if the Paybank is in the same country as the pay currency, then the correspondent details are NOT to be entered. In the EURO environment, this will mean that if the pay bank is in any 'IN' country and the pay currency is the EURO or any 'IN' currency, then the correspondent details must NOT be entered. (See MT100 usage SDIP for details on changes).

5.2.6.4 *Validation to ensure that sufficient details are captured at payment input.*

At payment input and straight throughs FTS needs to ensure that sufficient details are captured so that once the transaction gets to payment routing, the router will have sufficient details to choose any of the available clearing channels without having to send the transaction back to repair to obtain further details.

To limit the amount of data that needs to be captured, the validation process will need to ensure that sufficient details are entered to process through any of the clearings to which the paybank/'Their Correspondent' is a member of. This will mean that if a paybank/'Their Correspondent' is a member of only one clearing, the validation will ensure that sufficient details are entered to process through only that clearing. If a paybank /'Their Correspondent' is a member of more than one, validation will ensure that sufficient details are entered to send through any of these clearings.

Validation will perform a common module and specific clearing validation for each of the clearings to which a paybank/'Their Correspondent' is linked.

Each of the clearing tasks needs to supply their data requirements so that they can be consolidated to ensure that all relevant details are captured in payment input.

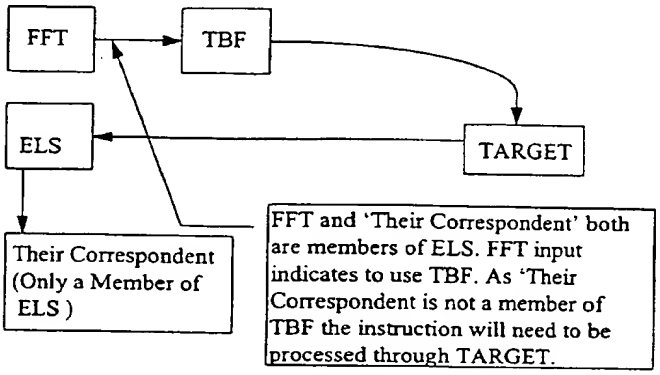
Module will be a COBOL program so that it can be called from Natural or COBOL.

5.2.6.5 *Identification when TARGET is to be used.*

FTS will need to identify when target is to be used as extra details will be required to ensure that when the product is generated the correct TAG information is available. To allow for efficiency, the decision whether TARGET is to be used or not will be made in straight throughs and payment input. If TARGET is identified, a new field FT-TARGET will be updated to indicate so. This field will then be used to ensure that the correct details are available/obtained and mapped to the outgoing message.

Decisions on when TARGET is to be used. (Instruction-Type of 'LQ' indicates a Liquidity Payment)

#	Decision	Remarks
1	Instruction-Type = 'LQ' <and> Channel has been specified. (must be an RTGS otherwise input is invalid). Note: 'LQ' with Payment-type = 'CLG' is invalid.	TARGET Payment
2	Instruction-Type NOT= 'LQ' <and> Paybank/'Their Correspondent' is not a member of clearing of which FFT is a member <and> Payment-Type = 'CLG'. Note: Preferred payment option will be held on the CMD table.	Obtain details whether PAYBANK/'Their Correspondent' prefers TARGET or corr. payment.
3	Instruction-Type NOT= 'LQ' <and> Correspondent is a member of clearing of which FFT is a member <and> Payment-Type = 'CLG'	Not a TARGET Payment

4	Instruction-Type NOT= 'LQ' <and> Correspondent is a member of channel of which FFT is a member. <and> Payment-Type indicate [redacted] of a channel to which the corr. is not a member. Note: This facility will [redacted] be available in Payment Input, not straight throughs.  	TARGET Payment

5.2.6.6 Validation when TARGET indicator can be used.

Validation needs to be included to check when the TARGET-Indicator can be set to indicate that the transaction needs to be processed through TARGET. The TARGET-INDICATOR will be made available for input in both single and 3 screen payment input. Validation will be included to ensure that the user does not request an invalid request.

When a payment type has been input (i.e. a channel has been specified), FTS will need to lookup on the new CMD (clearing member details) table for a record using the paybank and channel (payment type) that has been input.

IF the TARGET-INDICATOR = 'Y'

Payment-type input must an 'RTGS' clearer.
Read the clearing channel table (ECC) record for the clearing input.
If record is found validate that the CLEARING-TYPE is an 'RTGS'.
If no record found, error as clearing input is not valid.

Once the Paybank/'Their Correspondent' has been input.
Read the clearing member details table (CMD).
If a record is found for the Paybank/'Their Correspondent'/Payment-type combination. This indicates that the paybank/'Their Correspondent' is a member of the channel requested and therefore the TARGET-INDICATOR should be set to 'N'.

IF no record is found, this indicates that the Paybank/'Their-Correspondent' is NOT a member of the channel requested.

If a record is found for the Paybank/'Their Correspondent' indicating TGT or COR. Then payment-type needs to be set to 'CLG' and the TARGET-INDICATOR set to 'N'

If Paybank/'Their Correspondent' is a member of another clearing of which FFT is a member, this could result in the scenario 4 discussed above. FTS needs to validate that the clearing to which the Paybank/'Their Correspondent' is a member of is NOT available (check against the Clearing-Status data on the ECC table record for the clearing). If all clearings to which the Paybank/'Their Correspondent' is a member of are unavailable, then the instruction will be processed through TARGET and TAG54 details will be populated.

If no record found on the CMD table, error message as require at least one method of payment.

5.2.6.7 *TAG54 - Destination central clearing bank details.*

When instructions are to use [redacted]ET, extra details need to be supplied to the clearin[redacted]which the instruction is sent.

FTS will look up the details on the new CMD (Clearing Member Details Table) and if no record is found the transaction will be sent to repair. If a record is found there are two possible outcomes. The first indicating that the correspondent is a member of a clearing to which FFT is a member, or the second where the correspondent is not a member of a FFT clearing. In the later case, funds can be transferred in one of two ways:

1. Through the use of TARGET.
2. Through the use of a Correspondent.

Use TARGET

When messages are sent to a clearing that are to use TARGET, TAG54 on the outgoing instruction needs to be populated with the Central Clearing Bank SWIFT address of the destination clearing. To obtain this information, FTS will need to process the following:

- Obtain the details from the CMD table file for the paybank
  E.g.: <PAYBANK>TGT01PTE This indicates that for <PAYBANK> FTS must issue an instruction that will use TARGET and the destination RTGS will be the PTE clearing.
- Use the destination RTGS and obtain the clearing channel table record for that clearing.
- Data on the clearing channel record will indicate the central clearing bank SWFT address for that clearing.

Our correspondent details.

If a record is found on the CMD table that indicates COR as the channel, this will mean that the funds need to be transferred using a correspondent relationship. This will occur if the paybank is not a member of a clearing to which FFT is a member.

The details about which correspondent to use will be held on the Clearing channel table records. To obtain this information, FTS will need to process the following:

- Obtain the details from the CMD table file for the paybank
  e.g.: <PAYBANK>COR01PTE This indicates that for <PAYBANK> FTS must issue an instruction directly to our-correspondent for the PTE clearing.
- Use the clearing channel specified on the CMD record.
- Data on the clearing channel record will indicate the correspondent to which we need to sent the instruction ('Our-Correspondent')

5.2.7 Payment Input - Three screen

5.2.7.1 NON-Frankfurt branch processing.

1. Customers must be able to request a specific clearing channel to be used and this will need to be captured at input in a new field. At manual input stage, validation will be included to ensure that any channel specific information that is requested is valid. This will be checked against a new clearing channel table that is to be set up to hold channel specific information (see Table section above). The validation does not need to ensure that FFT is a member of the channel, only that the channel is a valid channel.
2. No validation will be included to check whether the customer is allowed to specify channel specific information or not. i.e.: Anyone can use the facility. The control will be that the facility will not be actively marketed to everyone. The reason for not validating this data is that OPS do not wish to unduly affect the straight through processing.
3. Value date needs to be validated against the currency holiday table ('CUR' Table). I.E.: If the payment is for 'IN' or EURO currency then payment input only needs to ensure that the EURO clearing is not on holiday (all 'IN' currency holiday dates will be set to the EURO holiday schedule on the new 'CUR' holiday table. (see FTS EURO Task 5.14 for more details on the holding of holiday dates)
4. 'Their' Correspondent details are only required for X-Border instructions. If the instruction is not a X-border payment, the router will need to use the Paybank details as the bilat details (used for reading the CMD records). If however the payment is a x-border payment, the 'Their Correspondent' values will be used for bilat processing and the reading of the 'CMD' details.
5. The URGENT indicator and TARGET indicator will not be available to Non-FFT branches.
6. Channel specific details will be mapped to TAG72 on the outgoing message to FFT. If the instruction requires a Direct to the beneficiary bank and a Reimbursement to FFT, only the reimbursement will have the channel specific details mapped to TAG72.

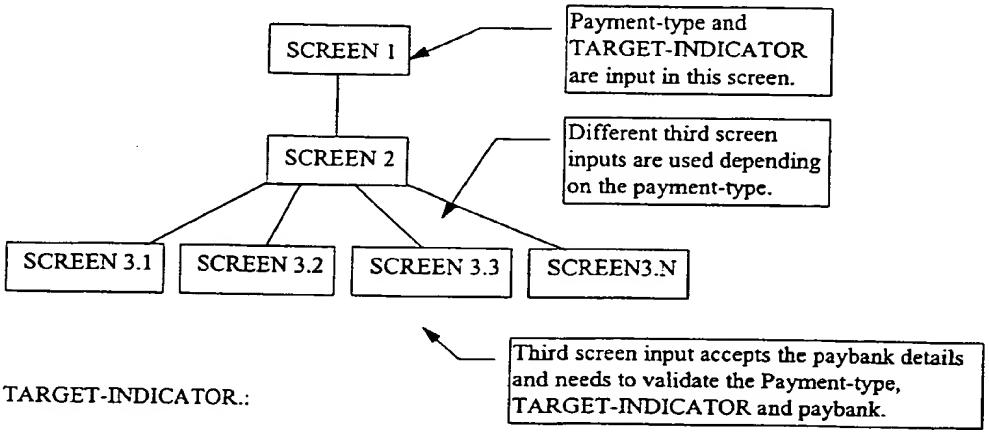
5.2.7.2 Frankfurt processing.

1. FFT will only be able to process EURO clearing instructions through one of the valid FFT channel routing options, that is a clearing to which FFT is a member. This will be controlled by using the existing 'TTY' table.
2. Value date processing as per NON-FFT.
3. Allow for a default payment type of 'CLG' which will then force the transaction into the payment routing process to decide on the channel to be used.
4. If the default payment type 'CLG' has been specified, payment input needs to ensure that at least one channel is available to route the transaction through. Needs to validate against the CMD table. Would also need to ensure FTS validates whether a correspondent/TARGET could be used. The validation will only check to ensure that at least one channel is available to send the payment through. This will be performed by checking to see if we have a record on the new CMD table. Validation on Holidays, crashed channels etc. will be performed by the router.
5. If payment-type has been set to 'CLG', FTS will need to read the available channels for the Paybank/'Their Correspondent' and ensure that sufficient details are available to process the payment through any of the channels to which the Paybank/'Their Correspondent' is a member.
6. A new instruction type will be made available to indicate if a payment is a liquidity payment. New code 'LQ'
7. An Urgent indicator field will be made available to manual payment inputs at Frankfurt. This will be used by the flow-control process to change the processing sequence for the transactions. (Urgent will be processed before non-urgent. Urgent indicator will only be made available for manual payment input at Frankfurt.
8. Urgent indicator will be default to 'N'. Operator will need to change to 'Y' to indicate that transaction needs to have a higher priority once reaching the flow-control process.
9. If the instruction type is set to 'LQ' (Liquidity Payment), payment input will automatically set the Urgent indicator to 'Y'.
10. No validation will be included to ensure that the Urgent indicator is only used for the liquidity payments. The Urgent indicator will be available to all manual inputs.

5.2.7.3 TARGET-INDICATOR validation

Processing problem with 3 screen payment input and the validation of the TARGET-INDICATOR. This is because the paybank details are only input in the third screen by which time the payment type and TARGET-INDICATOR have already been captured.

If the combination of Payment-Type, TARGET-INDICATOR, and Paybank is found to be invalid the user will be presented with an error and request them to return to the first screen to correct the Payment-type/ TARGET-INDICATOR inputs.



Validation on TARGET-INDICATOR.:

Validation will need to be called once the Paybank/'Their Correspondent' details have been input. See sections above for deail on validation.

5.2.7.4 *New Three screen completion module for payment-type 'CLG'*

A new completion module for three screen input will need to be generated to complete the payment input requirements. This new module will need to capture sufficient details to process payment through any of the available clearings.

The new module will need to ensure that any special processing currently performed in the modules for CPO, German and CRI/SIT (French) cleraing are included in the new CLG completion module.

Current completion modules are:

Decision	Routine called	Remarks
X-BORDER-IND = 'L'	FT4050	?
PAYMENT-TYPE = 'MPO' or 'CPO'	FTUN863	Include in New Module
PAYMENT-TYPE = 'BP'	FTUN864	NO
PAYMENT-TYPE = 'CHP'	FTUN865	NO
PAYMENT-TYPE = 'CHQ' or 'DFT'	FTUN866	NO
PAYMENT-TYPE = 'EAC', 'EAF', 'ELS', 'DD', 'CHK'	FT3417	Include in New Module
PAYMENT-TYPE = 'SIT'	FT3591	Include in New Module
PAYMENT-TYPE = 'DOM'	FT4407	NO
PAYMENT-TYPE = 'IAT and Branch = '601'	FT4418	NO
**NEW - PAYMENT-TYPE = 'CLG'		New module.

Current details captured on completion modules for various payment-types

GERMAN CLEARING (FT

```
BRCH 616 DOE 870          FTS M/[redacted]T SWIFT INPUT          15:41 ON 23Dec97
                          STAGE 2 - DM CLEARING

TRAN REF 9568411   BRANCH: 616  INTERNAL-IND:

CLEARER:                BANK CODE:

AWB DETAILS


INFORMATION TO PAYEE


MESSAGE TYPE: 0


PF3=Back PF5=Tog PF12=Mnu
                                                    FT3417M1 FT3417  020
```

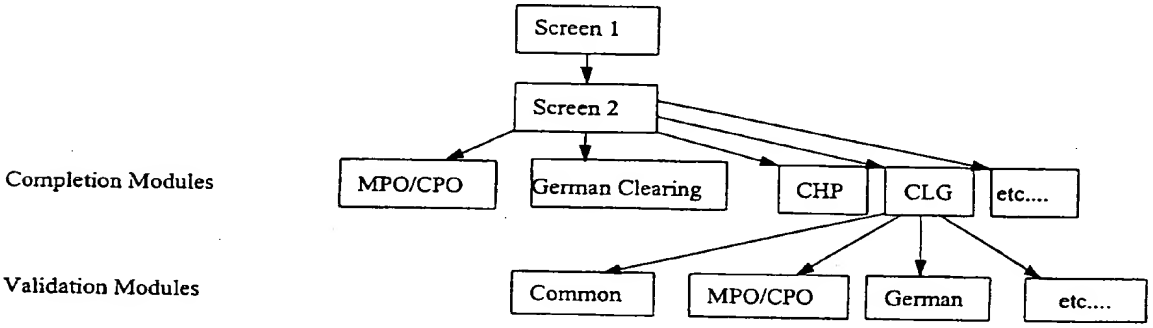
```
Original Message
T20 :                                  Priority
T32A:
SRN :
No message available

PF7=PREV PF8=NEXT                Page :
```

CPO/MPO INSTRUCTIONS (FTUN8631)

```
BRCH 671 DOE 205   FTS M/PAYMENT INPUT-STAGE2-PAYMENT ORDERS   15:53 ON 03OCT97
 TRANSACTION  REFERENCE  : 9568412   TRANSACTION BRANCH: 671  PAYMENT TYPE: CPO
 PAYING BANK                                  LOCATION: 000


     A/C INFO:-
A/C WITH BANK


THEIR CORRESPONDENT                          LOCATION: 000


BY ORDER OF


CORRESPONDENT CHARGES BEN  SWIFT PRIORITY    MPO (Y/N):-     PRINT LOCN :-
THIRD PARTY CABLE REQUIREMENTS:-  WHOM:        NUMBER OF CONFIRMATIONS:-
BY ORD N  INST CUST Y   THEIR CORR     PAY BANK      BENEFIC       A/C WITH
SWIFT   MIDLGB22
TELEX   W001647
CHIPS   2340
PF3=Back PF5=Tog PF12=Mnu
                                          FTUN8631 FTUN8631044
```

```
Original Message
T20 :                                  Priority
T32A:
SRN :
No message available

PF7=PREV PF8=NEXT                Page :
```

The new module will capture generic details that will help ensure that once the transaction reaches the payment router, sufficient details will be available to process the payment through any of the clearings to which the paybank/'Their Correspondent' is a member of. In the new 'CLG' completion module, the Paybank/'Their Correspondent' details will be input. The module will obtain a list of the clearing to which the paybank/'Their Correspondent' is a member of and will ensure that sufficient details are captured to process through any of these clearings. Validation will be contained in a new validation module that can be called from Payment input, Straight Throughs and the Payment Router.



5.2.8 Payment input - Single sc[redacted]

The following changes are to be [redacted] for Frankfurt processing only.

1. FFT will only be able to process EURO clearing instructions through one of the valid FFT channel routing options, that is a clearing to which Frankfurt is a member. This will be controlled by using the existing 'TTY' table.
2. Value date processing as per NON-FFT.
3. No validation will be provided to ensure that the customer is allowed to specify channel specific information. (See Three screen input above for more details).
4. Validation for 'CLG' see three screen discussion above.
5. If 'CLG' payment type has been entered, FTS will require the user to input a valid 8 or 11 character swift address in TAG 57 details. No CLR or BANKCODE details must be input.
6. Urgent indicator processing see three screen input discussion above).
7. Positioning of urgent indicator on the single screen see Appendix G.
8. A new instruction type for liquidity payments 'LQ' will be supplied.
9. If the instruction-type is set to 'LQ' FTS will automatically set the urgent indicator to 'Y'.
10. This input process is only available for certain branch payment type combinations. FFT (616) will need to be updated to include the new payment types for French,EBA and Chaps EURO as well as for the default 'CLG' payment type. Currently (Dec '97) valid combinations on the 'TTY' table are:

Payment Type	*Branch 190*	*Branch 616*	*Branch 671*
CHK		X	
CHP			X
DD		X	
EAC	X	X	
EAF	X	X	
ELS	X	X	
IAT	X	X	X

5.2.9 Straight through Payments

Each of the clearing channels will have a unique FTS payment type assigned to them. See payment input section for more details.

5.2.9.1 NON-FFT processing.

1. Straight through at non-FFT branch. Need to obtain any /NET/ or /RTGS/ details and generate on outgoing message to FFT. Clearing channel details will be populated in the TAG72 field.
2. No validation to check whether customer is allowed to specify channel specific information or not. (See Single screen input above for more details).
3. Value date will need to be validated as per Payment input.
4. The payment route specified by the customer using /RTGS/EBA is the DESTINATION clearing rather than the INPUT clearing. This is because the Input clearing only affects Chase's liquidity. The Destination channel affects the customers liquidity. E.G. if RTGS/EBA is specified Chase could pay through CHE, and Target, to EBA, and hence to the correspondent bank. This then allows for clearings to be specified that are not clearings that Chase FFT is a member of. Like in the Portuguese example /RTGS/PTE would go Straight Through as these other clearings would be set up on a new validation table.
5. If the channel specified by the customer is invalid (e.g./RTGS/XYZ), this will NOT be sent to repair. In this case, FTS will honour the /RTGS/ request and the router will then decide on which /RTGS/ to use. This will mean that no validation for the channel specific information will be required at any NON-FFT branch.
6. Validation for 'CLG' see three screen discussion above.

5.2.9.2 *FFT Processing.*

1. For instructions that do not specify the channel to be used, need to check that at least one channel is available to be used to route through otherwise send to repair.
2. Value date will need to be validated as per Payment input.

Straight throughs needs to set the payment type to 'CLG'.?

TAG72 channel specific data possible scenarios (Corr. = Their correspondent):

#	Tag72 channel info	Description	Straight Through	Other:
1	No details	No Channel information supplied	Payment-type = 'CLG' Ensure that at least one record on CMD table.	
2	/RTGS/	Channel type supplied	Payment-type = 'CLG'	The router will only use RTGS clearings which the paybank/'Their Corres' is a member of.
3	/RTGS/XXX	XXX not on new clearing table (ECC). Assumption is made that the customer has supplied an invalid clearing.	XXX is removed and Payment-type = 'CLG'. (i.e. as per #2)	
4	/RTGS/EAF	EAF is a valid channel but it is not an RTGS.	EAF is removed and Payment-type = 'CLG' (i.e. as per #2)	
5	/RTGS/ELS Paybank/Corr. is a member of ELS.	Valid channel	Payment-type = 'ELS'	
6	/RTGS/ELS Paybank/Corr. is NOT a mem. of ELS.	Valid channel details but the correspondent to use is not a member of ELS clearing	Payment type = 'CLG'. Remove the channel data (ELS). (i.e. as per #2)	
7	/RTGS/TBF Corr. NOT a member of TBF	Invalid input from user. DO NOT USE TARGET.	Payment-type = 'CLG' and remove channel details. (i.e. as per #2)	
8	/RTGS/PTE	PTE valid channel found on the channel file. Unable to identify whether Paybank/'Their Corr.' is a member of PTE clearing or not.	Payment type set to 'CLG'. Remove the channel data (PTE) and process as /RTGS/	Router will use new table to identify what the PAYBANK's preferred method of transfer is. TARGET or Correspondent. TARGET - Update new field FT-TARGET. Correspondent - look on channel table file to obtain 'Our' correspondent details.

Scenario 1. No channel specific information provided.
This should be the most common situation as not many customers will be given the ability to request channel specific information. In this case, the decision on which channel is to be used will be postponed until the payment router. The only validation required in this instance, will be to ensure that at least one channel could be used for routing the payment. This will entail obtaining 'Their Correspondent' and using this to read the records on the clearing member details (CMD) table file. If no record is found for the correspondent in question, the transaction will be sent to repair with an appropriate error message. If the Correspondent details were not supplied and they could not be automatically derived the transaction would also be sent to repair.

If at least one channel could be used (I.E. record on the clearing member table file), the Payment-type would be set to 'CLG' to indicate that the router is to decide the channel to be used.
See Appendix H for FT-CORRESPONDENT processing.

Scenario 6. Valid Clearing type/channel which FFT is a member of but correspondent NOT a member of clearing.
Scenario 5 was a situation where the 'Their Correspondent' was a member of the clearing channel requested. In this situation, 'Their Correspondent' is not found on the clearing member table file (Not a member of any clearing to which FFT is linked). In manual payment input, this situation would require the payment to use TARGET. In this case, the details supplied are invalid and FTS will reset the channel data to space and set the Payment-type to 'CLG. The transaction will then be processed as if no channel details had been received.

Scenario 7. Valid clearing type/channel correspondent is a member of clearing to which FFT is a member but correspondent not a member of clearing specified.
In the following case, the 'Their correspondent is a member of a clearing to which FFT is a member, (i.e. record is found on the clearing member table file), but it is not the clearing which has been specified. In payment input this data is allowed and the system will indicate that TARGET is to be used. For straight throughs however, no facility will be given for customers to process through TARGET. FTS will ascertain if TARGET is to be used. For this situation, FTS will remove the channel data and process as an channel type input. (as per scenario 2 above).

Scenario 8. Valid Clearing type/channel but FFT is not a member of the clearing specified.
This scenario arises when a customer wishes to receive their funds through a clearing system of which FFT is not member. The example above indicates /RTGS/PTE (assumption is that PTE is a valid channel and that it is an RTGS clearing mechanism). Straight throughs will read the CMD (clearing member and preferred routing method) table and if no record is found the transaction needs to be sent to repair no preferred routing method was found. If a record is found the payment -type is set to 'CLG' and the transaction will be processed further in the router.

5.2.9.3 Identification when TARGET is to be used.

Need to identify when target is to be used as extra details will be required to ensure that when the product is generated the required TAG information is available. To allow for efficiency, the decision whether TARGET is to be used or not will be made in straight throughs and payment input. If TARGET is identified, a new field FT-TARGET will be updated to indicate so. This field will then be used to ensure that the correct details are available/obtained and mapped to the outgoing message.

Decisions on when TARGET is to be used. (Assume Instruction-Type of 'LQ' indicates a Liquidity Payment)

#	Decision	Remarks
1	Instruction-Type = 'LQ' <and> Channel has been specified. Note: 'LQ' with Payment-type = 'CLG' is invalid.	Not valid as 'LQ' only available in FFT payment input onwards.
2	Instruction-Type NOT= 'LQ' <and> Correspondent is not a member of channel of which FFT is a member <and> Payment-Type = 'CLG'. Note: Preferred payment option will be held on the channel member table (CMD).	Obtain details whether PAYBANK prefers TARGET or corr. payment.
3	Instruction-Type NOT= 'LQ' <and> Correspondent is a member of channel of which FFT is a member <and> Payment-Type = 'CLG'	Not a TARGET Payment
4	Instruction-Type NOT= 'LQ' <and> Correspondent is a member of channel of which FFT is a member. <and> Payment-Type indicates use of a channel to which the corr. is not a member. Note: This facility will only be available in Payment Input, not straight throughs.	No valid in Straight throughs. Set channel specific data to the clearing type and set payment tye to 'CLG'.

5.2.9.4 *Validation to ensure that sufficient details are captured at payment input*

At straight throughs FTS needs to ensure that sufficient details are available so that once the transaction gets to payment routing, the router will have sufficient details to choose any of the available clearing channels without having to send the transaction back to repair to obtain further details. If insufficient details are supplied, the transaction needs to be sent to repair so that the necessary details can be captured.

Each of the clearing tasks needs to supply their data requirements so that they can be consolidated to ensure that all relevant details are captured in payment input.
- CHAPS EURO (CHE)
- EBA (EBA)
- French Clearing requirements. (TBF/SNP)
- German Clearing (ELS/EAF)

Validation routine will be a new CICS COBOL module to allow it to be used from COBOL or NATURAL.

5.2.9.5 *Completion modules*

FTK0014 straight though processing currently calls/links to the following programs that will require changes and or inclusion into the Payment routing module.
Straight through modules affected are:

Program	*Description*	*Pay Route Impact*
FTK0015	TRANSACTION COMPLETION(DIRECT PYMT)	YES
FTK0017	TRANSACTION VALIDATION	YES
FTK0023	ROUTING MODULE	?
FTK0032	TRANSACTION COMPLETION (LOCAL CURRENCY SWIFT)	YES
FTK0033	TRANSACTION COMPLETION (ELECTRONIC BANKING) (LOCAL CURRENCY CCAP)	YES

When Straight thrus decides which status to set the payment to next it does so by accessing table TTY.
If the payment is a Euro next day local x border the status from TTY table should not be used. Instead set the status to 370xxx.

5.2.10 IDR , IDR Contingency, and Marketing Approval

These applications will have to be changed as follows:-
If the payment is a Euro next day local x border the status from TTY table should not be used. Instead set the status to 370xxx.

Also FTK0025 has hard coded 370 stage status:-

Line 793 Checking for inactive transaction or where stage-status is less than '370'
This needs to be changed to check where stage-status < '369'.
Line 846 Same as above, needs to be changed to check '369'.
Line 867 Check on '370 should be changed to '369'
Line 871 Moving '370' for PC Contingency, should be changed to '369'.

5.2.11 New Payment Routing p[redacted]s FTK0090

Assumption is made that all transactions that are read by the Payment Routing module will be processed through the Flow Control Process. To cater for this, the Router will add a new record to FT-FLOW-TRANS for all transactions that pass the router validation. Once a record has been added to the FT-FLOW-TRANS file, processing is effectively passed to the Flow Control Process and the Router has no further involvment in the payment unless it is re-routerd.

Delay processing

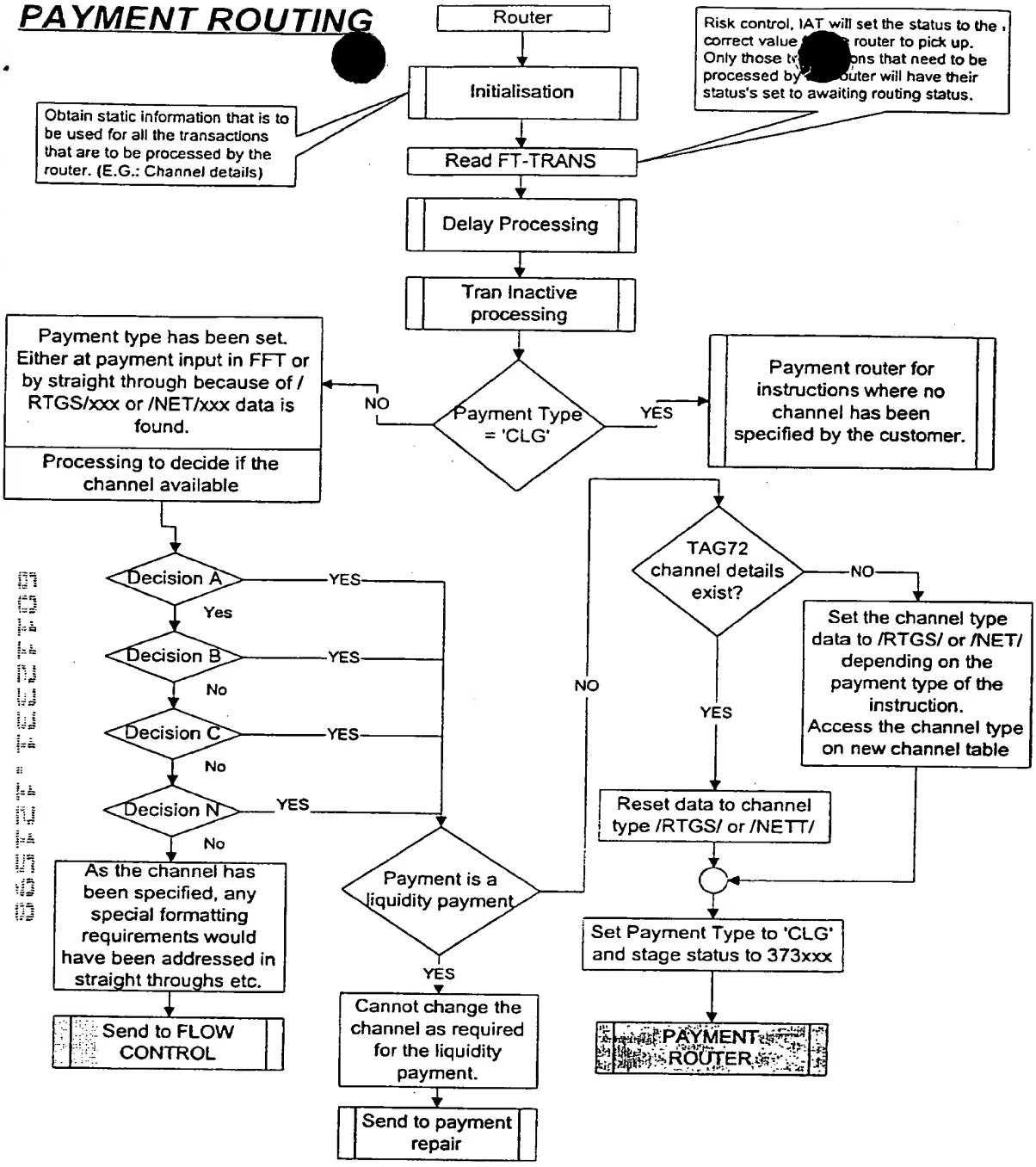
Currently transactions are delayed at product generation. This delay facility will be included at Payment Routing. The idea is to have delay functionality at the Payment Router and Product Generation but a transaction will only ever be delayed at one of the queues (either at payment routing or product gen.).

Transactions can be removed while at delay by deleting them and if need be re-entering in Payment-Input. This function will be available for those transactions that are delayed at payment routing because at that stage the transaction will still be live. Within payment routing, the 'Live' status of the transction is removed and the will therefore not be able to be deleted (removed).

Multi-tasking/streaming the routing module.

It is believed that by the time transactions reach the payment router, there should not be the same volume as are processed by the earlier sections and the timing of the transactions reaching the router should not cause any undue delay. It is for this reason that no streaming will be performed on the routing process. Therefore only one router background task will be used.

PAYMENT ROUTING



Decision A : Is the channel available. Check against the new Channel Table field CHANNEL-STATUS. If 'O' = open and available.

Decision B : Is the channel on holiday?. Use the CHANNEL-HOLIDAY-TABLE field to identify which holiday table needs to be read to decide if a channel is on holiday or not.

Decision C : Has a cut-off time for the channel been reached?. Obtain cut-off time details from the channel table field CUT-OFF-TIME.

5.2.11.1 *Initialisation.*

When the router backgro k starts up, various static details need to be obtain at are to be used for all transactions processed through the router. Details will be obtained for each clearing where the Clearing-member field is set to 'Y' and will include:

Clearing Type
Clearing Controlled
Default Processing Priority
Channel Holiday Table
Clearing Country Code

Note: If a change is made to these details on the ECC record, the change will only become effective the next time the Router Background task starts as the Initialisation section will only be performed at the start of the router process before the transactions are read.

5.2.11.2 *Processing of transactions by the router.*

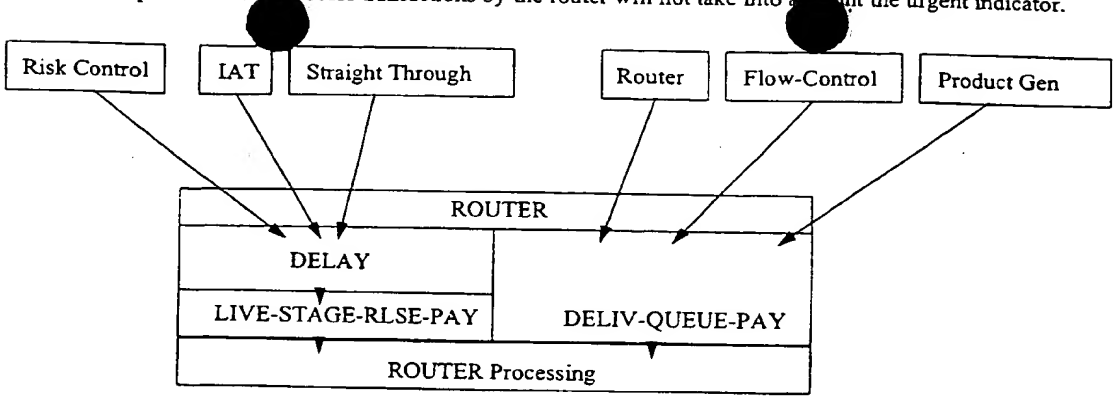
To cater for the facility to delay transactions at payment routing, the router will need to perform two reads to process all transactions that require processing. The first will read all transactions that have a stage status of 369xxx while the second read will process all the transactions that have been re-routed by the router module or the flow-control module.

Transactions will be read by stage status of 369xxx or 373xxx.
Transactions with stage status of 369xxx will be processed through the delay facility as the module that sets the stage status to 369xxx will also set the RELEASE-DATE-TIME value to allow for the delay of the transaction.
Transactions with stage status of 375xxx will be read without taking into account the RELEASE-DATE-TIME value and will therefore NOT be delayed.

Keys to be used to read the transactions will be:

Read 1. LIVE-STAGE-RLSE-PAY		(A20)
	TRAN-LIVE	(A1) = 'L'
	STAGE-STATUS-MPYMTS	(A6) = '369xxx'
	RELEASE-DATE-TIME	(A13) = YYMMDDHHMMSSS
Read 2. DELIV-QUEUE-PAY		(A12)
	PROD-DELIVERY-IND	(A1) = '1'
	STAGE-STATUS-MPYMTS	(A6) = '375xxx'
	DOE-CNTRL-SEQ	(A3)
	SOURCE-IND	(A1)
	TRANS-TYPE	(A1)

Note: The sequence used to process transactions by the router will not take into account the urgent indicator.

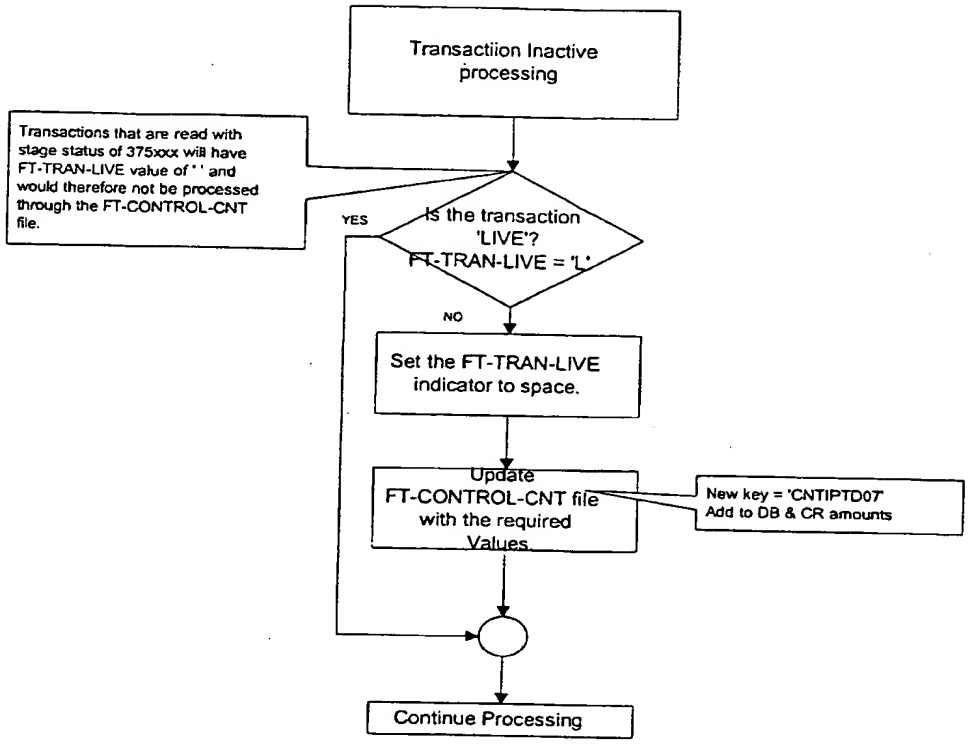


5.2.11.3 Control total updates for inactive / non-live transactions

Currently product generation sets transactions from a live status to an inactive status and sets the inactive status number depending on the stage at which the transaction is in the FTS transaction flow. In particular:

At delay product generation
Awaiting batching
Batched

1. The payment router will make 'Payment Transaction Removal Request (PTRR)' invalid. This is acheived by removing the 'Live' status of the transaction and means that once the router has begun processing the transaction it cannot be cancelled by using the PTRR facility. If the transaction is held in the bilat or DR/CR cap limits in Flow Control, the transaction could be sent to repair and then cancelled.
2. The Tran-Live/ Inactive fields on FT-TRANS control amongst others things whether the PTRR facility can be used (see point one above). The fields also indicate at what stage a non-live transaction is at. (E.G. at delay product gen, Awaiting Batching, Batched).
3. A new inactive stage of 'At payment router' will be maintained as the router will now also perform the same process as is currently performed by Product Gen with regards to inactive status of transactions. The new control number to be used is 07. (e.g. Control total for Transactions Awaiting Router for payments today will use the following identifier - CNTIPTD07).
4. The control total enquiry screen will be updated to report the new control total values. (FTGN900) See appendix K for screen changes.



5.2.11.4 *Transactions that are to bypass the router.*

There are certain instructions that need to bypass the router module as they are not clearing instruments and therefore no routing decision is required as they are "CPO's" and they do not have to be monitored by flow control. For example, currently we have the situation where a credit instruction needs to generate an outgoing instruction.. To allow for this FTS provides the facility for a user to move a credit to the payments process so that the required outgoing products can be generated at the end of the payment flow (Product Generation). These credits need to be passed to the payments process as the product generation modules are only available to the payments process.

Within the EURO project, changes will be made to allow for the generation of these outgoing messages (MT100's or Telex's) from the end of the credits process. This should alleviate the need to move these credit to the payments leg.

Operations have requested that the existing functionality for moving credits to the payment leg be maintained. These transactions should bypass the router and be sent directly to product gen as they will have a payment-type of 'CPO'. The assumption made is that a payment-type of 'CPO' will indicate a non-clearing or credit-down-the-payment-leg transaction and will not be processed through routing and flow control. If the router needs to process a clearing instruction through a correspondent (CMD details indicate that the Paybank/'Their Correspondent' requires payments to be sent through a correspondent), the router will set the Payment-Type to 'CPO' and pass to Flow Control as this is a clearing instruction although it has a Payment-Type of 'CPO'.

5.2.11.5 *Validation Rules.*

1. Holiday date validation. Currently both EAF and ELS are closed on German national holidays. After the introduction of the EURO, EAF will continue to be closed on German national holidays but ELS will be open. Other clearings are still to finalise their holiday date requirements.
2. The payment router will not validate any liquidity values. The main decision from the router's point of view is which channel should the payment be sent to. The flow control process will validate the liquidity issues.
3. If an RGTS channel is requested by the customer, then FTS will attempt to process through an RTGS channel, but it may not be the specific RTGS channel requested by the customer.

5.2.11.6 *Processing NOT performed by the router.*

1. Customers may want FX to go through EBA but other payments through a different channel, and they will not want to set this in TAG72 on every transaction. FTS will NOT be modified to cater for this situation.
2. Swift , SSI Database. As this facility is not going to be available till the 1st or 2nd quarter of 1998, the inclusion of this request in the current EURO project is not possible and will not be considered in this design.
3. FTS does not need to maintain a history of channels tried. The reason for this information was that if a customer had requested ELS but because of certain factors (e.g.: ELS had crashed), we had to use TBF to affect the payment, we would need to have some indication that we had tried the specified channel. The conclusion reached from discussions was that we do not need to maintain channels tried because we do not guarantee the channel specified and if we get complaints, we can obtain various details from the channel authorities themselves (e.g. can get unavailability info from EBA etc.).
4. May have audit details available for the flow control process, but this will not be processed by updating the stage status history details on the FT-TRANS record.
5. Using the liquidity details in the clearing channels and bilateral limits when deciding on the channel to use.
6. Minimum clearing volumes/values for the various channels.
7. Any hold-ups in the channels (operations could close the channel if the queue to the channel becomes unmanageable)
8. No facility will be provided for a customer to set up default preferences.
9. No automatic process to route transactions down a channel because another is busy.
10. The amount of the transaction will not be taken into consideration when deciding on the channel to use for the payment.

5.2.11.7 *Channel availability.*

1. The flag on the channel record indicating whether the channel is available or not will be used to indicate if we are unable to access the channel. (This would mean that if the ABK machine was down but ELS was not, and ABK had indicated that they would not be available for the rest of the day, then the flag for the ELS channel would be set to 'C' closed or not available). The router will not be making use of more than one channel available indicator. (i.e.: Router will not check whether Actual channel has crashed, our link to channel has crashed, TARGET crashed etc..)
2. When a channel crashes, information needs to be obtained to allow OPS to make a decision as to whether they expect the channel to be temporarily unavailable or whether it is more permanent. For a temporary crash, the channel available flag will be kept as a 'Y' meaning that the channel is still available but the Debit/Credit cap limit validation can be changed to hold these channel payments until the channel becomes available after which the limit can be changed back to allow the payments to be sent to Product Generation and out to the channel.
3. If an Instructions is to be sent through TARGET, the router will not have any validation in place to validate that the destination clearing is available or not.
4. If a transaction reaches the router and no channel is available, (e.g. Only one channel (e.g.: ELS) can be used to get to the paybank and this channel is unavailable, then the transaction will be sent to repair. A decision could then be made to identify that it was our link to the channel (E.G.: ABK) that was down and a new channel can be specified to get to the paybank through TARGET (assuming TARGET was available))
5. Cut-off time processing requirements. Need to validate cut-off time parameters for any specific cut-off processing.

5.2.11.8 *Channel priority*

Priority for processing channel info will be maintained manually. Each paybank that has a specific priority required for deciding on the channel to use would need to be updated manually. A default priority list will be maintained for those paybanks that do not have specific priorities set. The default processing priorities will be held on the ECC table records.

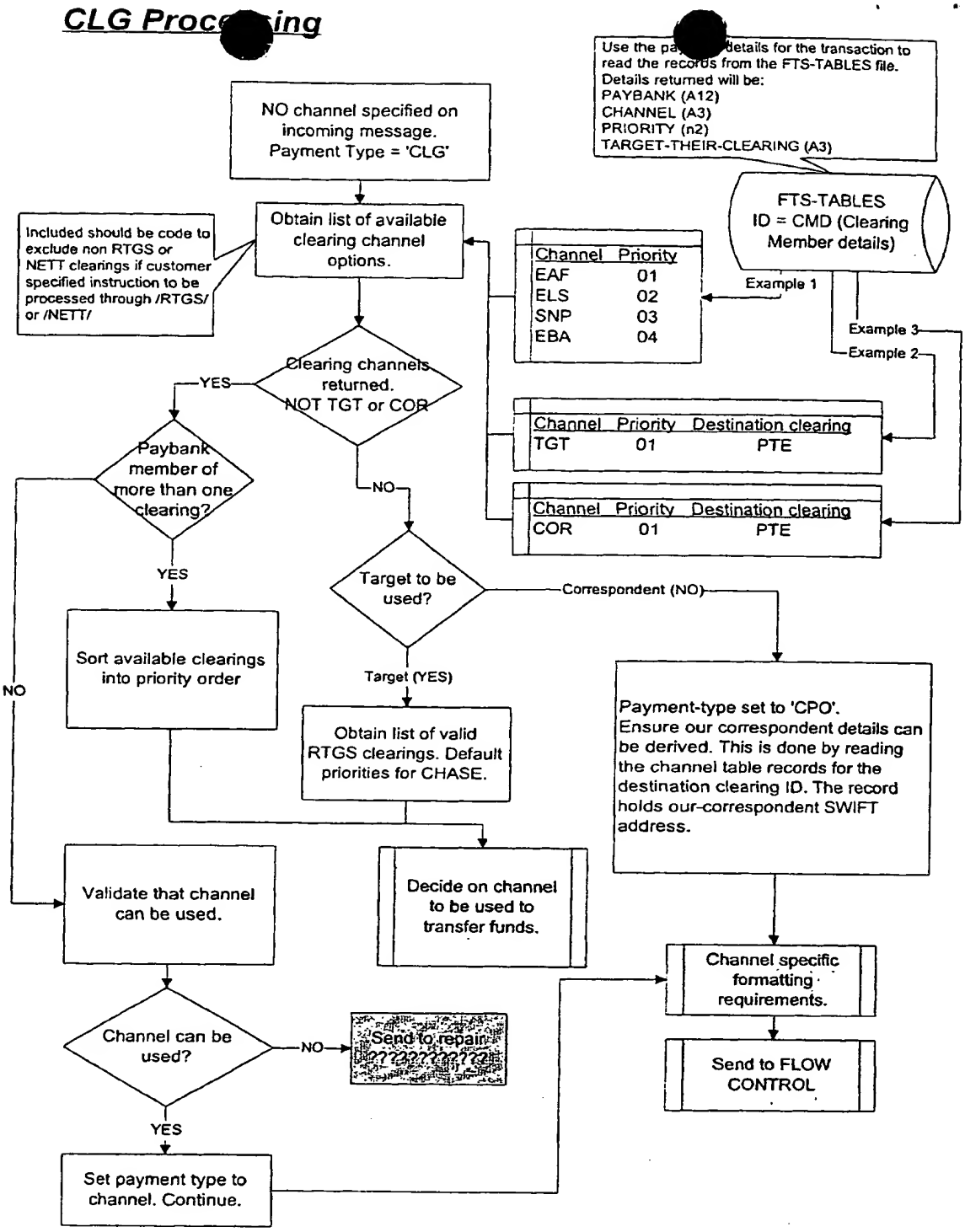
5.2.11.9 *'CLG' processing*

If the customer has not specified the clearing channel to be used, the Router will process the transaction through a decision making process to attempt to automatically derive a channel to be used.

Clearing channel supplied but not a channel that FFT is a member of.

If the incoming TAG72 details contain channel specific details and FFT is NOT a member of the clearing channel specified, these insturctions will be processed as 'CLG' payments with only the clering channel type details used by the router.

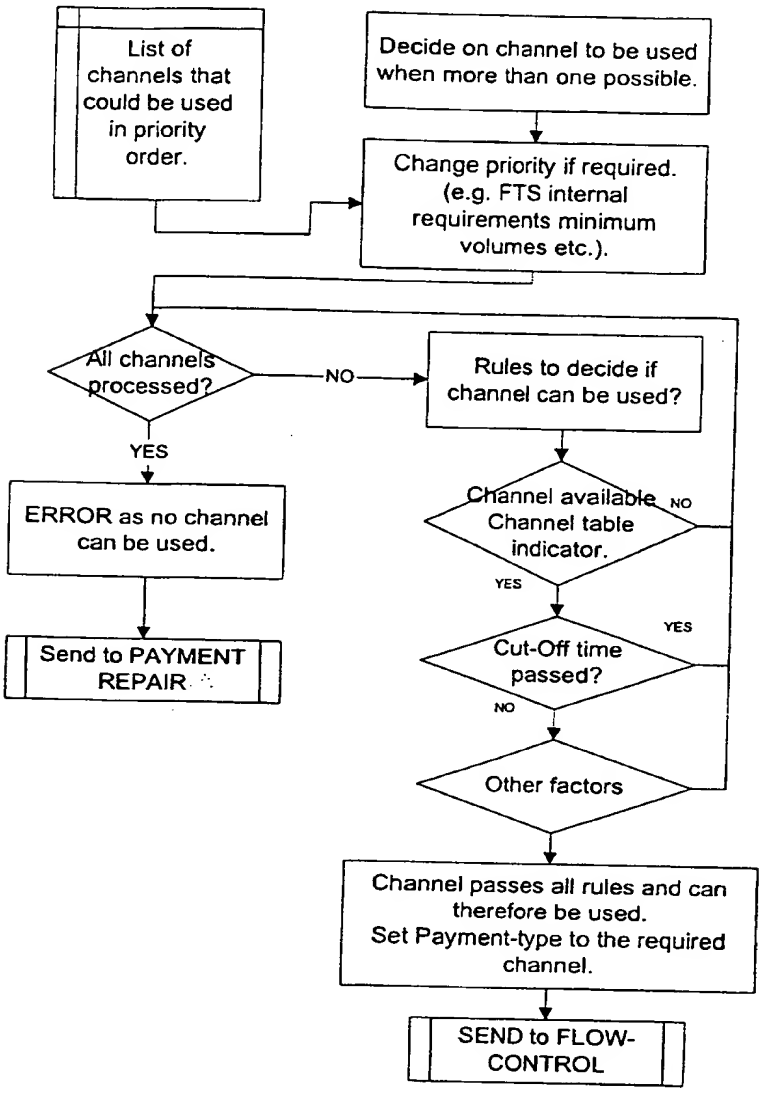
CLG Proc[redacted]ing



5.2.11.10 Decision rules for choosing clearing channel to use.

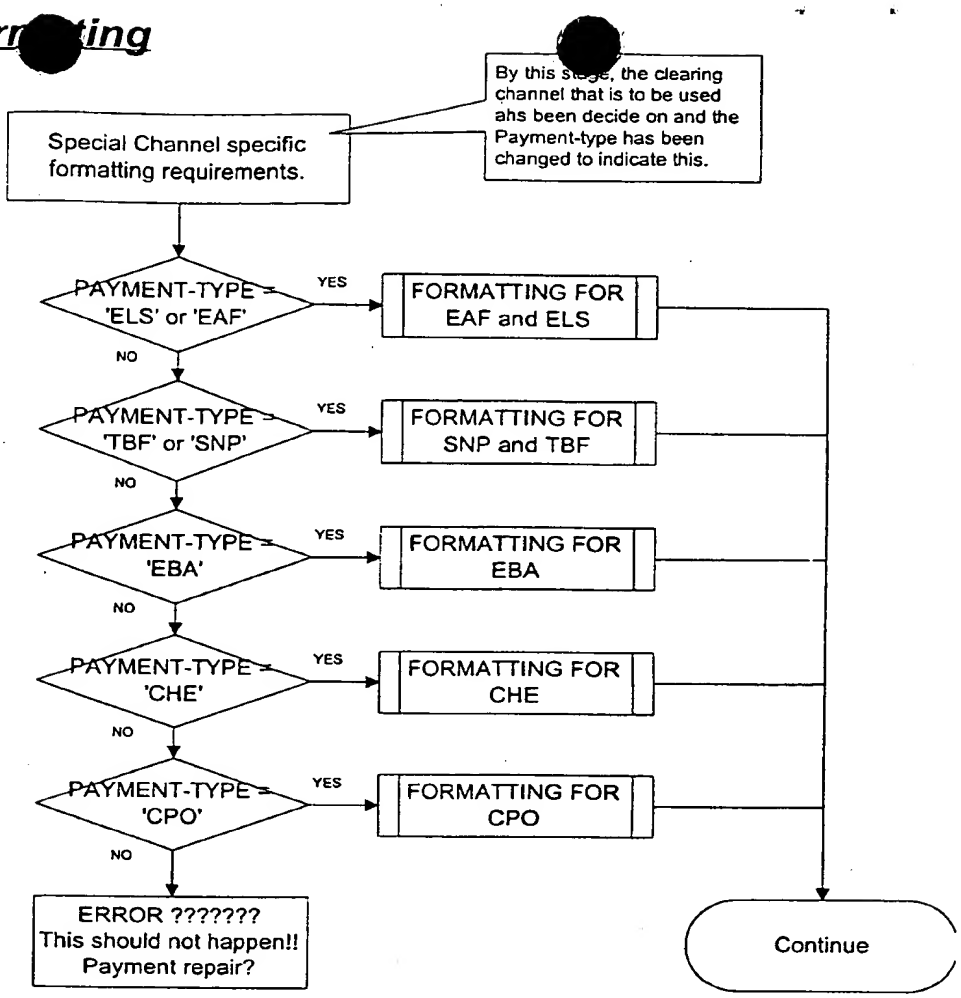
If more than one channel co[redacted] used, the router will need to decide on which cha[redacted]s to be used.

Decide on channel to use.



5.2.11.11 Special clearing channel formatting.

If the initial instruction type was 'CLG' or the payment type has been changed by the router or Flow Control, special formatting requirements will need to be included to cater for the channel that has been chosen by the router.



5.2.11.12 Passing control to flow-control.

Once a channel has been identified (either by the router or if the channel has been specified by the customer, the router will need to pass control to the flow-control process. This is achieved by adding a record to the new FT-FLOW-TRANS database that will be used by the flow-control modules to process the liquidity validation. The flow control process will then perform the validation necessary against these records.

The process of passing control to the flow control module requires that the FT-TRANS record be updated to indicate that the transaction has been sent to flow control. This will be done by changing the stage status to 374xxx. This will effectively stop FTS processing this transaction while the flow control process is being run.

Store details to new FT-FLOW-TRANS file that will be used by the flow control module as follows.

Field	Details
BRANCH	e.g. 616
STATUS	Awaiting Bilat Check
HELD-IND	'N'
TIME-CREATE	Time created on this Dbase
BILAT-ID	The swift address of "Their correspondent" bank that we are sending the payment to.
CHANNEL	FT-TRANS.FT-PAYMENT-TYPE or SWIFT address of 'Our Correspondent' if the payment-type is 'CPO' (i.e. Correspondent transfer).
URGENT-IND	FT-TRANS.FT-URGENT
AMOUNT	FT-TRANS.CR-AMT
FTS-TRAN-REF	FT-TRANS-REF

Correspondent processing
If the payment is to be processed through 'Our Correspondent' because we are unable to use one FFT's clearing channels, the payment type would have been set to 'CPO'. When the FT-FLOW-CONTROL file is updated with the new record, the channel details (on FT-FLOW-CONTROL) will be populated with 'Our Correspondent' details. This will allow for the monitoring of payments made through each of 'Our Correspondent's'.

5.2.11.13 PC Contingency update.

During the passing control to the flow-control process, the router will also update the PC-Contingency data. This will be the only extra update to the contingency details as a result of the new routing/flow-control process. This update will be performed as the control is passed to the flow modules as it is at this stage that the channel that is to be used has been identified.

Field	Details
FTK0049-FTS-TRANREF	FT-TRANS-REF
FTK0049-STAGE-VALUE	'369'
FTK0049-TRAN-LIVE	Space
FTK0049-RCODE	SPACES
FTK0049-BRANCH	<BRANCH e.g. 616>
FTK0049-TRAN-INACTIVE	07

NB if a new Contingency system is in place by 1/1/99, OPS require it to take into account the Urgent flag.

5.2.12 Bilat/Channel Flow Controller FTK0091

5.2.12.1 Introduction

This new background task will monitor the Bilateral limits within the clearing systems. It will maintain the total number and amount of payments sent to each Bilat today. If a payment would put the totals over the agreed limit for that bilat then this program will put the payment to a held status and not let it go out of FTS.

The process will fed payments by the Payment router. The Router will add them to a new database file FT-FLOW-TRANS with a status of 'Awaiting Bilat check'. The Bilat process will seach for records with this status.

First thing in the morning it will be turned on by Operations and will process all outstanding transactions.

This process will be streamed by branch. Within 616 it will also be streamed by Clearing group. Clearing group is a group of payment types as defined on the CLG table. There will be one background task for each clearing group as defined on the BGD table. Note that as correspondent channels will have payment type CPO they will be processed under one background task i.e they cannot be split.

5.2.12.2 Read access

It will read, one by one, all transactions currently awaiting this check on FT-FLOW-TRANS. It will read the transactions in order of Urgent first, then non urgent, and within this smallest first. It will read held transactions as well as new ones and will make no distinction between them.

This ensures that all urgents for a particular channel are processed first. It also ensures that the credit limit is taken up by lots of small payments rather than a few large ones. This means that more payments get out the door and if we have a contingency situation there will be less payments requiring manual processing.

It also ensures that All urgent payments for a channel are released first and so hit the Debit Cap controller before non urgent ones.

To read in the correct order it will use the BILAT key:-

BRANCH	from BGD table record
STATUS	set to Awaiting Bilat
CLEARING- GROUP	from BGD table record
URGENT-IND	set to zero
PAYMENT-TYPE	set to spaces
BILAT-ID	set to spaces
AMOUNT	set to zero

To have just one read need status before clearing group. Note that records are not read in channel order but this does not affect static data reads as this is the Bilat

5.2.12.3 For each record read do the following :-

On change of Bilat or Channel (and on first time in) read the appropriate Limit record from FT-FLOW-CONTROL with key of BILAT-ID and CHANNEL from the FT-FLOW-TRANS record.
If this program cannot find a limit record on FT-FLOW-CONTROL for the bilat/channel being processed it will do the processing outlined in the Requirements section 4.0.

If the CONTROL-IND on this record is set to N (No control required) just update the balance, the number released, and the amount released. Then rel[redacted]e payment to the Debit cap controller. Do this for [redacted] payment within this bilat/channel. Otherwise do th[redacted]owing:-

For each record within that Bilat or Channel, check that the amount would not put the balance over the limit on the FT-FLOW-CONTROL record. If it would then set the record to held and read the next one. If it wouldnt then update the balance and release the payment to the debit Cap controller.

On finding that an urgent payment needs to be held the process will set all subsequent payments in that Bilat/channel to held also. This means that a smaller non urgent will be held even though it could in theory be released. This is to ensure that small non urgent payments do not use up all available credit and so continually stop urgent payments from being released.

As there could be a lot of Channel/Bilat combinations within Urgent remember this by updating a BILAT-HOLD-IND on the FT-FLOW-CONTROL record for that Bilat/Channel. Will need to set this indicator back to 'N' once all non urgent payments for this bilat/channel have been processed. Could do this by detecting change of key on non urgent payments. Or by making BILAT-HOLD-IND a descriptor and reseting all records at once at the end of processing(more complicated because of streaming).

5.2.12.4 Final processing :-

Once all outstanding payments have been processed it will go to sleep for a set period (eg 5 minutes). After the set period it will wake up and look for any more outstanding records. It will also reread any payments currently held and recheck them (just in case a credit arrived that increased the balance while it was asleep). Credits are added to the balance by a separate process described later.

5.2.13 Clearing Debit Cap flow controller FTK0092

This process will work in the same way as the Bilat check above except that :-

1) It will be looking for transactions with a status of 'Awaiting Debit Cap check' but will need to read in a different order (urgent trans within Payment type)

It will will use DEBIT-CAP key:-

BRANCH	set to 616 (or JPMorgan)
STATUS	set to Awaiting Debit Cap
CLEARING- GROUP	from BGD table record
CHANNEL	set to spaces (must be channel and not Payment type)
URGENT-IND	set to zero
AMOUNT	set to zero

2) The appropriate Limit record will have table key of channel, and Bilat id = XXXXXXXX

3) This process will also be streamed by branch and Clearing group.

4) It will not update successful transactions to the status of 'Awaiting debit Cap check' but instead will
- delete the record from FT-FLOW-CONTROL - *Should this be FT-FLOW-TRANS?*
- update the payments FT-TRANS record to the stage status of 373xxx. It will find this record by using the ISN stored on FT-FLOW-TRANS

5) It will check that the amount of each transaction is not above a maximum set for the channel. (for EBA this is 75 % of Debit Cap). If it is the transaction will be held.
The limit will be held as an amount rather than as a percentage. The check will be done as part of the Debit Cap controller process (even though payments held in this way would already have gone through the Bilat and Agg Bilat controllers and so will have used up some credit in those balances).

6) If the controller cannot find a limit record on FT-FLOW-CONTROL for the payments Channel, it will release the payment as if it had passed [redacted]heck, and it will update the usual totals. (Because o[redacted]processing in the Bilat controller these payments w[redacted]er only be for channels that dont need checking d[redacted]ayments have been released by Ops on purpose).

NB Payments held due to this check will not be highlighted or marked in anyway. Their large amount will be the only way to distinguish them from payments failing the debit cap check. NB also that their large amount will ensure that they appear on the online screens at the end of all other payments.

5.2.14 Validation of payment data - New module FTK0093

In the current product Generation transactions with Stage Status 370xxx go through various validation. Transactions with Stage Status 375xxx do not, because they used to be 370xxx and so have already been validated.

As Euro clearing products will be set to 375 before they reach Product Generation they would potentially miss this validation. Hence the validation will be copied and included at the end of Flow Control. It cannot be put before the held queues because one of the checks is ensuring that the DOE is still open.

Transactions leaving the Online flow control and going direct to product generation will also have to be validated in this way.

Hence this validation will be written as a module which can then be called by the Debit cap controller and the online screens.

The validation required will be : -

- Account status
- DOE closure
- Product status integrity
- Held product indicators ?? or is this x border only ?
- Also must set PROD-DELIVERY-IND to 1 so prod gen will read these 375 records.

5.2.15 FT4710 - Start/stop Routing and Flow Control Background Tasks

A new application will have to be set up for the Start and stop of the Routing and Flow Control Background tasks. This will be a clone of FT3556/FT3493/FT3489 which are other application background task start ups. A new table entry will also have to be generated on the STF table for the new application id, this will be passed as a parameter to the subprogram FT3499 which then kicks off the actual background task ,or stops it depending on the request from the user. New table entries will also be required on BGD table for all new background tasks. No program changes are required to any existing programs.

Program FT3469 displays the current status of all the FTS background tasks. If the new background tasks are currently running they will automatically be picked up by this program.

5.2.16 CICS Control of Flow Control programs

These new background tasks will be controlled in a similar way to the other FTS tasks like F11A. They will be streamed by branch but also they can be streamed within branch.
They will be designed such that it will be possible to stream them by individual Payment type (EBA, ELS, EAF, CHE, SNP, TBF, CPO), or by grouping up any of these (eg one clone for French clearing , one for DEM, etc or even one clone for everything). NB Payment type is different to CHANNEL as each correspondent bank is a different channel but only one payment type - CPO.

How they are streamed will be controlled by tables, in a similar manner to the VMT and BGD tables. Because of the requirements to have more than [redacted]itical time period per channel the second data line [redacted]BGD table will be used to store up to 5 more critical times([redacted]otal). There are seven clearing channels in Corresp[redacted]t banking is counted as one. Hence if all seven require different Critical times then at least two clones will be required.

Payment routing will set up a field on FT-FLOW-TRANS called CLEARING. The value of this field will be determined by a new table 'CLG' that Payment Routing will access. This table will govern the way in which the clearings are grouped (and therefore streamed).

In the example below it has been agreed to stream Flow Control by country clearing mechanism IE French clearing, DEM Clearing etc

```
TABLE-ID: CLG  DESC: PAYMENT-TYPE
                     CLEARING GROUP

 SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- ------------------- --------------------------------------------------
      Y  EAF                 DEM
      Y  ELS                 DEM
      Y  TBF                 FRF
      Y  SNP                 FRF
```

Each Flow Control clone will only read records on FT-FLOW-TRANS that have a certain value of STATUS and CLEARING. The value of CLEARING that it will look for is obtained from a new table 'FLW'.

In the example below F91A will read any record with CLEARING equal to DEM. This means all Deutsche clearing types ELS and EAF.

```
TABLE-ID: BGD  DESC: CICS TRAN ID
                     DELAY|HELD RECORD|CRITICAL TIME START|
                     CRITICAL TIME END|HELD RECORD DELAY|BKG TRAN DATA

 SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- ------------------- --------------------------------------------------
      Y  F91A                0500 0003 0001 0001 0000 NF90BABND002   DEM616   Y
                             0502 0002 0003 0003 0004  0504 0005 0005 0006 0006
```

New records will be required on the QSE table to control the error processing. Queue Status Enquiry currently uses the QSE table to find out which TSQ to look at to get the error description. i.e. - When enquiry looks at TSQ FTABNDT1 and finds that position 032 is flagged, it then goes to table record 'QSE' and gets the name of the TSQ with the error description = F90AABND. See section on tables later.

5.2.17 Error processing in the Flow Control programs

If a system error occurs during the processing in the Flow control and payment routing background tasks then the CICS transactions F88A and F99A must be abended and a message written to the CICS TS queue 'F88AABND' and the master TS abend queue record FTABNDT1 . The transaction record updates must be backed out and the stop task indicator on the BGD control record is set to prevent further runs of this transaction.

The error will then show up on FTS Queue Status Enquiry.

5.2.18 Online Flow Control

Online function for enquiring and controlling payments held at the various stages of liquidity checks. Access to this functionality will be via either one of two applications, Enquiry or Update. Users with Enquiry access will only be able to enquire on the Held payments in Flow Control. Users with Update access will be able to monitor and control payments in Flow Control. All Held records on FT-FLOW-TRANS will be available for Enquiry and/or Update.
See Appendix I for Screen Flows Diagram and all screen layouts..

5.2.18.1 Main Summary Screen.

The first screen will be the ma[redacted]mmary screen and will be accessed by Superdescrip[redacted] (in section 5.3) which will display the number of transactions and the amounts for payments held at each stage of the liquidity checks, Bi-lats and Debit Cap for each channel/correspondent. Pressing ENTER will refresh the screen at any time.

On entering '?' to view options available the following window will be displayed.

```
Options

1 - Reroute Channel
2 - Display all Urgent Payments by
    Status
3 - Display all Paybanks by Channel

Enter Option :X
```

These options are described below.

5.2.18.2 Option 1 - Reroute.

If this option is chosen another window will be displayed which will give the user the chance to specify a new channel to reroute to, or leave blank and let the routing module decide.

```
Reroute Window
______________

Enter channel to reroute to
or leave blank for Routing module
to decide
      :XXXXXXXXXXX
```

If a channel has been specified the program will read through all the payments by Superdescriptor 1 (section 5.3. and for each one do a lookup on the FT-FLOW-CONTROL file to check that a bilateral agreement exists for that paybank and channel. If no bi-lat agreement exists then the payment will stay in Flow Control and not be rerouted. If a bilat agreement does exist then the payment will be routed back to the routing module where it will be formatted for the new channel.
If no channel has been specified, the selected payment(s) will be routed back to the Routing module with a payment type of 'CLG' and the routing module will decide on the appropriate channel.
The stage status on FT-TRANS must be set back to 370XXX, so that the routing module will pick these payments up and any urgent payments will be reset to non-urgent.
Users will have to confirm their actions by pressing PF2.

5.2.18.3 Option 2 - Urgent Payments for Channel

This option will access the records by Superdescriptor 2 (section 5.3.) and display all urgent payments for the chosen channel in order of Status (either 'B' or 'D') then paybank then value i.e. the lowest value first. The time displayed will be the time elapsed since the payment first entered Flow Control. The screen will be refreshed each time ENTER is pressed.

When entering a '?' to display the options a window will appear with the available options. These are described in the section below on "Individual payment options".

5.2.18.4 'Option 3 - Display all Paybanks for Channel

When selected this option w[redacted]ss the records by Superdescriptor 3 (section 5.3) a[redacted]play for each paybank, the number of transactions and the amounts for each status i.e . Held Bilat and Held Debit Cap. It will also provide the functionality to be able to toggle left and right to see Bilat and Debit Cap excess positions and limits. This will allow the user to guage how much the Bilat and Debit Cap positions will go to if the Held bilats are released.

On entering a '?' to view available options a window is displayed as below:

```
Options

1 - Reroute Paybank
2 - Display Payments for Paybank
3 - Release Paybank Payments to
    Product Generation

Enter Option: X
```

1 Reroute.

Same as option 1 - reroute from main menu.

2 Display Paybank Payments by Status.

On selecting a paybank and entering a status a screen will display all payments for that paybank/status.
e.g. DEUTDEFF/HELD BILAT.
The payments will be displayed in order of urgency then amount of transaction (smallest first). The fields displayed will be Transaction Ref no, amount, urgent ind, time(being time elapsed since first being held). Also the net balance for that paybank/channel will be displayed. These records will be accessed via Superdescriptor 4 (as detailed in section 5.3).

```
FTS PAYBANK ENQUIRY/CONTROL              HH:MM DD/MM/YY
                  PAYBANK XXXXXXXXXXX SUMMARY SCREEN              Page 1
 STATUS : HELD AT BILAT
 NET BALANCE FOR PAYBANK IS 999,999,999,999.99

      TRANS. REF     URGENT       AMOUNT          TIME
      ----------     ------  --------------    --------
  -   88834567          Y       7,367,439.00    00:05:31
  -   99996667          Y     534,222,456.00    00:07:45
  -   23987653          Y     725,765,776.00    00:07:57
  -   84849593          N       1,543,098.00    00:05:03
  -   55434376          N     220,773,452.00    00:03:21
  -   01234567          N     398,543,098.00    00:10:09
  -   88834567          N     721,765,776.00    00:30:32
  -   99996667          N     898,222,456.00    00:14:03
  -   23987653          N     899,367,439.00    00:15:40
  -   84849593          N     901,999,999.00    00:03:59
  -   23987653          N     934,367,439.00    00:15:40
  -   84849593          N     999,999,999.00    00:03:59

 Enter '?' to display Options
 PF7 Page Back, PF8 Page Forward, PF3 Back, PF5 Restart, PF12 Main Menu
```

On entering '?' a window will be displayed with the available options.
These are described in **Section 5.1.10.7**
Other functions available from this screen are :

- PF7 Page Back
- PF8 Page Forward
- PF5 Restart
- PF3 Back to Paybank Summary Screen
- PF12 Main Menu

3 Release Payments to Product Generation.

This option allows the use[redacted]hoose all payments for a paybank and release them[redacted] Product Generation bypassing the [redacted]ning liquidity checks. All the relevant Flow Contr[redacted]nces will be updated. Should be able to choose several paybanks at a time and they should all be processed simultaneously

5.2.18.5 Non-Urgent Payments for Chosen Channel.

This screen displays non-urgent payments for a channel and status and is displayed in order of amount (smallest first). It is accessed from the Urgent Payments for Channel screen. The access key to retain these records is Superdescriptor 2 (section 5.3) with the urgent-ind set to space.

5.2.18.6 Individual Payment Options.

These individual payment options apply to all screens where individual payments are displayed. Window displayed as below:

```
Options

1 - Reroute
2 - Display Payment
3 - Cancel Payment
4 - Change Priority
5 - Send to Repair
6 - Release to Prod Gen

Enter Option: X
```

Option 1

Same as option 1 - reroute from main menu.

Option 2
When this option is entered next to a payment, the controlling program will go off and fetch the actual first screen of Transaction data, (FTGN934) on the FTS Transaction Enquiry function. The Transaction Ref no. will be passed to it.
On exiting from the Transaction enquiry, control should be passed back to the screen from where the enquiry was first made.

Option 3
When cancelling a payment, the payment will actually be sent back to repair. In doing this, Blotter will be reversed and IDR will be backed out, stage status will be set to 320003 and the message will also be sent back with the payment in the Notes field instrucing the operator to cancel the payment.The appropriate Flow control balances on FT-FLOW-LIMITS would be updated.

Option 4
A payment's priority can be changed to either move it up the queue so that it gets released to Product Generation quicker or can be moved from urgent to non-urgent.

Option 5
When a payment is sent to Repair the stage status would be set to 323003 'Blotted Awaiting Completion'. Blotter would be reversed causing the IDR to be backed out and FT-FLOW-CONTROL would be backed out accordingly. A new message would be required to reflect why this message has come back to Repair. Also CNTIPTD07 control totals would be backed out.

- **Option 6**
  On forcing a payment thro[redacted] Product Generation, therefore bypassing other liq[redacted]checks, the balances on the FT-FLOW-LIMITS file sh[redacted]be updated. The stage status would be set to 373XX[redacted]that Prod Gen would pick it up.

5.2.19 FT4700 - Start of day reset of flow control balances

A new batch program will reset all the Flow control balances to zero. It will run during the night while the FTS online system is unavailable.

It will read all records on FT-FLOW-CONTROL sequentially. On every record it will reset the following :-

Current balance
Number of payments held due to this check
Total amount of all payments held
No of Payments released
Amount of Payments released
No of Confirmed Credits received
Amount of Confirmed Credits received
HELD-IND - reset to 'N'

The two limit fields will not be updated.

5.2.20 FT4703 - Overnight deletion of FT-FLOW-TRANS

This will be done as an overnight process once a week. To reduce the impact of these records on the efficiency of the cics tasks they will have their superdescriptors set to spaces so that Adabas indexes are are small as possible.

A new batch program will delete all records on FT-FLOW-TRANS and feed them to the Foxpro process?
(The Debit cap flow controller could delete records but it was felt that it would be safer to keep them for a while).

5.2.21 FTUN038 - End Of Day processing

This program needs to be changed to look for transactions still in the Flow Control process. These transactions will be inactive and so the current access on superdescriptor TRANS-STAGE-PAY:-

TRAN-LIVE	= 'L' or 'P'
DOE-CONTRL-SEQ	= Users DOE
STAGE-STATUS-MPYMTS	= all values
DB-AMT-COMP	= all values

will not pick them up (TRAN-LIVE = space). Instead have a sceond access using DELIV-QUEUE-PAY:-

PROD-DELIVERY-IND	= 1
STAGE-STATUS-MPYMTS	= 373 to 374
DOE-CNTRL-SEQ	= users DOE
SOURCE-IND	= all values
TRANS-TYPE	= all values

5.2.22 FT4715 - Online update of Flow Control limit data

A new online application will be provided that will allow the users to maintain the Flow control limits on FT-FLOW-CONTROL. The liquidity limits may need to be adjusted at very short notice. It is felt that using GPPM would be too slow as it requires verification by a second person. Hence a new online application is needed for this.

The following fields will be updateable and all other fields will not be.

BILAT-ID
CHANNEL
CONTROL-IND (Only for specific Channel/Bilat records)
MAX-AMT
LIMIT

The function will comprise of an initial screen to accept the channel/bilat id. The minimum requirement at this stage is the entry of a channel. This will display a summary of all bilats for the entered channel, from which the user may select a channel/bilat id for maintenance. The summary screen will only display the fields mentioned above (except for CONTROL-IND).

If both fields are entered on the first screen, the program will find the corresponding record for maintenance, and will display the details as in screen 3. If no data can be found for the entered id, the program will assume that a new flow control record is to be created. A check should be made that a Debit Cap limit exists for the channel entered. If not, the user should be prompted to create one and not be allowed to progress any further until this has been done.

If a channel is to be created, the bilat id should be all 'X', and the channel should be checked against the channel table in TABLES-FTS. If no channel exists on the the channel table in TABLES-FTS, an error should be returned to inform the user of this situation and not allowed to procede any further with the creation. This entry can be created via a separate program.

The Bilat id entered should be validated (if not all 'X's) by extracting the first six characters, and using them to scan for the first record that matches on the SWIFT-ADDRESS file.

The details in red on the screens below show the fields that are available for data entry. Other details, on screen three for example, are displayed for information purposes only.

Care is needed when maintaining an existing control record, to ensure that the record is only locked for update when the user has confirmed that the changes made on screen 3 are correct and have been acknowledged via PF2. This will minimize the disruption to processes maintaining the balance and flow control totals on the record.

The current balance and number of payments will not be updatable by any online screens.

Standard Chase PF key functions will allow for navigation to and from the different screen formats, and choice of action on the data.

This program will require another superdescriptor for the FT-FLOW-CONROL file of BRANCH/CHANNEL/BILAT-ID. See appendix C for screen layouts.

5.2.23 Product Generation

Changes for 370 to 375

Prod generation itself will have to be changed to do some processing for 375 that it only does for 370 :-
Setting of Held product indicators (or is this x border only)
Reduce control total for TRAN-INACTIVE = 07 and increase for 01 for transactions coming from Flow Control

Changes for CLGs
Transactions with payment typ[redacted] will have stage status of 370003. These will be re[redacted]F08C.
Validation for CPOs in FTK00[redacted]ction 2.2.5.8 in the spec) will have to be done for [redacted]s as well.
Any processing for 370s and payment types EAF etc may need changing to include CLGs also.

Volumes
The second read of prod gen is currently inefficient. All clones read all transactions at 375 and each clone will then reject those transactions it doesnt need. For Euro we will potentially be increasing the number of transactions read via 375. This may cause problems with the response time of these tasks.

Ideally this processing should be redesigned such that each clone only reads its own 375s (eg EAF/ELS clone F08B should only read ELS/EAF transactions). However, this would be a reasonably large amount of work. Due to the time scales of the Euro project it was felt that this is not an essential change and can be left for a later date (or maybe never if response times turn out to be ok in user test/production).

Control totals
For 375s if tran 07(euro only) t 07 and add to 01.

5.2.24 Acknowledgement processing

Initially when a Euro payment comes into FTS a wash account will be credited in Payment Input/Straight Throughs. Only when we know which clearing the payment is going to go through will we be able to get the correct nostro account to be credited.
This nostro account number will be held on a new TABLES-FTS file called ECC (Euro Clearing Channel).When an acknowledgement has come back fom the clearing, the ECC file will be accessed by the payment-type on FT-TRANS and the nostro account will be held here.
The CR-ACC-NO on FT-TRANS will then be updated with the nostro account from ECC for that clearing at the same time as the other fields on FT-TRANS are being updated.

5.2.25 Accounting feed generation

Currently, the account entry feed jobs (PJFA020, PJEA020 etc.) have a hard coded nostro account number in the JCL which is passed to the program FT3594 for use in determining which items are going to be bulked. The hard-coded nostro account number will change but only in PJFA020 which is the Frankfurt account entry feed job. The items that are bulked at the moment are for payment types EAF, ELS and EAC and it is envisaged that this will not change for Euro.
There are no other changes envisaged at this time to FT3594, but if JP Morgan change their accounting procedures we may have to hard code the Euro currency code into FT3594 to allow for a Euro entry on the DDA.

5.2.26 FTS Payments Queue Status Enquiry

This will be changed to show the new Payment routing and Flow Control status's. Also the screen for FFT branch will vary slightly from the screen for all the other branches.

For FFT the changes will be : -

Merge At Delay status with new Delay status for awaiting payment routing.
Merge all 4 prod gen lines into one summary.
Then use 2 of the 4 spare lines to have one line for payrouting and one line for Flow control
Have PFKEY to go to a screen with a breakdown of :-
4 prod gen lines, 2 Flow Control lines and 2 At Delay lines.
Have pfkey to toggle to the online flow control screens
Dont need PF3 and PF12 as the same thing! So remove PF12

See appendix E for screen layouts .

For all non FFT branches
Keep as is. (If it is decided later that new layout is required for JP Morgan, will have to do more code changes then).

5.2.27 FTS Transaction enquiry

This will be changed to disp new FT-TRANS fields. Where ?Also changed to [redacted]ck to online flow control if was called from there .

5.2.28 FTGN900 - Today's control totals enquiry module

The control total enquiry screen will be updated to report the new control total values fro payment routing. That is to reflect the new TRAN-INACTIVE value of 07.
See appendix K for screen changes.

The enquiry module that displays the control total values will need to be modified to include the new control totals for the awaiting payment routing status. (CNTIPTD07).

INPUT TOTALS	COUNT	*FT-CONTROL-KEY*
BROUGHT FORWARD FROM PREV DAYS.....	11	- *CNTLPBF*
RECEIVED VIA T'SLIP/RPI INSTRUCTIONS.	13	- *CNTRCVDT*
RECEIVED VIA SWIFT (INCLUDES FTPC) ..	5748	- *CNTRCVDR*
RECEIVED VIA MTS.....	654	- *CNTRCVDL*
RECEIVED VIA MULTICASH.....	16	- *CNTRCVDU*
RECEIVED FROM OTHER CHASE SYSTEMS....	530	- *CNTRCVDK*
MANUALLY INPUT.....	336	- *CNTRCVDP*
TOTAL	7308	
TRANSACTION TOTALS	COUNT	
CURRENTLY ACTIVE.....	6819	
AT PRODUCT GENERATION.....	310	- *CNTIPTD01*
REMOVED/CANCELLED.....	27	- *CNTIPTD02/03/04/05*
AWAITING BATCHING.....	22	- *CNTIPTD06*
BATCHED.....	130	- *CNTIPTD09*
TOTAL	7308	

Current DD values used:

- 07 - at router
- 01 - At product Generation
- 02 - Removed / Cancelled
- 03 - Removed / Cancelled
- 04 - Removed / Cancelled
- 05 - Removed / Cancelled
- 06 - Awaiting Batching
- 09 - Batched

FT-CONTROL records updated in a number of places.

Taking CNTIPTD01 record currently accessed by:

Natural	*Details*
FTGN900	Control totals display.
FTU2029	Instrument serial number input update
FT3066	Swift/telex direct out - backout program to move transactions stuck in the new swift/telex direct out stages into the awaiting batching Stage
FT3416	FTS product generation - dm clearing - eod confirm
FT3425	FTS product generation - dm contingency processing
FT4403	Lira end of day processing
FT3422	Accounting extract ft-trans update
Cobol	
FTK0008	Product Gen
FTK0058	Product Acknowledgement processing task.

- The modules will need to be updated to backout values from the new control total stage (CNTIPTD07) before adding the CNTIPTD01 stage values. See [redacted]les that update CNTIPTD06 record for backout p[redacted]
Processing requirements for u[redacted]g the FT-CONTROL-CNT records see Appendix I.[redacted]

5.2.29 Contingency

Payments that have at some stage of their flow to the clearing bank been rejected or not actually made it to the clearing will be made available for contingency processing. This option currently exists within FTS for DM Clearing Contingency.
There will be two new options within FTS for CHAPS Euro Clearing Contingency and French Contingency (as below). The new options will be based on and will follow the same processing as DM Clearing Contingency.

5.2.29.1 German Clearing.

Currently payments that have a stage-status of 375001, 375002, 375011, 375014 and 375015 and are a payment type of 'EAF, 'ELS' or 'EAC' are available for DM contingency processing. These statues mean that either the payment has been rejected at the clearing, has had an error at Product Generation, is awaiting an acknowledgement or is waiting to be sent at Product Generation. After Product Generation, the transaction is flagged as inactive so is not retrievable for cancelling. Therefore the contingency process is essential so that the payments can be sent back to Payment Input for repair and put through processing again.
For options 1 and 2, payments at stage status of 375015 (Rejected by LZB) are available, and for options 3 and 4 statuses 375001, 375002, 375011 and 375014 will be available.
The new fourth option will be added to the screen to enable a payment to be sent back to Payment Routing.
See Appendix F for screen layouts.

5.2.29.2 FT4720 - CHAPS Euro Clearing.

Payments available for CHAPS Euro contingency will be of payment types 'CHE' and 'EBA' and at stage statuses of 375001, 375002 and 375011. These are either awaiting acknowledgements, waiting to be sent out, error'd at Product Generation, or Nack'd .

If we are going to have a specific stage status for rejection of the payment at CHE or EBA (as for DM) then we can provide options 1 and 2 as for the DM Clearing contingency. If rejections are going to be handled the way CHAPS payments are currently then we only have to provide options 3 and 4.
Option 3 will cover stage statuses of 375001, 375002 and 375011 and allow these to go back to Repair.
Option 4 will cover stage statuses of 375001, 375002 and 375011 and allow these payments to go back to the Routing module where a new payment channel will be chosen for it.

5.2.29.3 FT4721 - French Euro Clearing.

All French payments available from these options will be at stage-status 375??? The specifics of the French payments stage statuses have still to be decided. But from this screen payment types of 'SNP' and 'TBF' will be available and depending on how FTS or the clearing themselves are going to handle rejections will determine which stage statuses will be picked up.

5.2.29.4 Processing rules for options available:

The following processes will take place for options 1,2 and 3

a. Transaction set to 'L'ive.

b. Tran-inactive set to space. Tran inactive upto Acknowledgement processing is 01, at Awaiting Batching it is 06 and at Batched it is 09. At each of these of these stages a Control total is kept of all the payment amounts. When a payment moves on a stage the amount is backed out from the previous stage's totals and added to the next. CNTIPTD01.

c . Blotter reversed. (as in current processing).

d. Payment amount backed out from the Bilat balance and the Debit cap balance on FT-FLOW-CONTROL.

For option 4 to send payments back to the Routing module

a. CNTIPTD01 totals [redacted]d out. (as above)
b. Payment amount b[redacted]out from FT-FLOW-CONTROL balances.
c. Payment type changed to 'CLG' as the Router will decide an appropriate channel.
d. Tran-live set to ' '.

5.2.30 Test aids

Four new test aid programs will be required to display and update the new Flow control files. Just one screen for each as not much data to display. As follows:-

Display FT-FLOW-CONTROL
Display FT-FLOW-TRANS
Update FT-FLOW-CONTROL
Update FT-FLOW-TRANS

The display programs will be promoted to user test and production, whereas the updat eones will go to user test only.

Also the FT-TRANS test aids will need to be amended to display the new fields

5.2.31 FT4716 - Online maintenance of ECC table

Special update routine will be generated to cater for the maintenance of these table records. The existing GPPM facility cannot be used because various validation rules need to be included when maintaining the table details. These are:

1. Ensure that clearings can only be 'O'pened if FFT is a member of the clearing.
2. For clearings that FFT is not a member of, validation should ensure that CHASE-CORRESPONDENT details are present.
3. If more than one cut-off time is required, validation should ensure that the second cut-off time is not before the first cut-off time.
4. CLEARING-TYPE can only be 'N' for NET, 'R' for RTGS.
5. CLEARING-STATUS con only be 'O'pen or 'C'losed.
6. CLEARING -member-capture can only be 'M' for manual or 'E' for electronic.
7. CLEARING-HOLIDAY-TABLE can only be 'HOL' or 'CUR'

The CLEARING-CONTROLLED details will be used by the flow control module when no bilateral record is found. See flow control section of SDIP for more detailed discussion on the use of this data. CLEARING information information will need to hold details on the holiday table to use for deciding on when the clearing is on holiday and when it is not. See appendix G for screens.

5.2.32 FT4717 - Online maintenance on CMD table

Within straight through, payment input as well as in payment routing FTS will need to check which clearings a bank is a member of. To cater for this, a new table is to be generated (CMD) that will allow for the maintenance of channel membership details by Paybank. Each Paybank/Channel combination will be held on a different record to allow for easy maintenance and prioritising of channels. A new module (FT4717) will be generated to create and maintain the details on this table.

Data will be either manually captured or updated through the use of a batch process from existing table data.

The table will not only hold details on the clearings to which a Paybank is linked, but will also hold details relating to the preferred routing method if Paybank/'Their Correspondent' is not a member of a clearing which FFT is a member of.

5.2.33 Stage status '370' Hard[redacted]ng changes

There are some programs that havent already been mentioned that will require changes purely because they have stage status of 370 hard coded. These are listed below

FT3011 - Automatic Charge calculation. Line 2615 -- Add check for '369'.

FT3516 - Reset Payments Release Date and Time. As we are adding new stage statuses for 'Delay Awaiting Payment Routing' this program has to be changed to include the stage-statuses 369001 - 369010.
Increase array for #LOOP to process 10 instead of 9. This is because the stage stauses will increase, and currently it is only processing 9 stage statuses for '37000'.

FTGN311 - FTS Transaction Delay Menu. Currently checking transactions at stage status of '370'. Change to include '369'.

FTUN313 - FTS Transaction Delay - Option 2 Release Transaction from Hold.

FTUN314 - FTS Transaction Delay. - Option 3 Override Delay period for Transaction.
Add new check after line 5070, if #SPLIT-STAGE = '369' update #HOLD-STAGE = '369003' and #STAGE = '369'.

FTUN2827 - ATR Payments to Release from Delay.
Add a check to see if current stage status is '369' or '370' and update #STAGE-STATUS to either '369003' or
'370003' accordingly.

5.2.34 FT4055 - Overnight update of X border

This will be changed to set the stage status to 373 instead of 375 for Euro transactions only. Will need to worry about the branch some how.

It will set the TRAN-INACTIVE to 07, and maintain Control totals by backing out the 01 control totals and updateing the 07 control totals.

5.3 SUBSYSTEM PROGRAM INDEX

5.3.1 AMENDED PROGRAMS

NB the estimates below are for the changes required by the 5-10 Payment Routing and Flow control Euro Task. The work required for changes due to the other aspects of Euro are not considered here in this SDIP.

NAME	LANGUAGE	TITLE	Spec Estimate	Code Estimate	Test estimate
FT1408	Natural	FT-TRANS enquiry test aid	0	1	
FT1458	Natural	FT-TRANS update test aid	0	1	
	Natural	Payment input single screen	2	4	3
	Natural	Payment input 3 screen	2	3	3
FTK0011	Cobol	Initial msg processing	1	4	3
FTK0014	Cobol	Straight thrus	2	4	4
FTK0015	Cobol	Straight thrus	2	4	4
FTK0017	Cobol	Straight thrus	2	4	4
FTK0032	Cobol	Straight thrus	2	4	4
FTK0033	Cobol	Straight thrus	2	4	4
FTK0025	Cobol	Hard coded '370' changes + x border	0.5	0.5	1
		CLC, MA	1	3	3
FTK0008	Cobol	Prod gen	3	4	3
FTK0049	Cobol	PC contingency	0	3	2
FTK0058	Cobol	Acknowledgement Processing	0	0.5	1
FT3011	Natural	Automatic Charge Calculation	0	0.5	1
FTGN311	Natural	FTS Transaction Delay Menu	0.5	0.5	0.5
FTGN313	Natural	Release Trn from Hold	0.5	0.5	0.5
FTGN314	Natural	Override Delay period for Trn	0.5	0.5	0.5
FTUN2827	Natural	ATR Pmnts to Release from Delay	0.5	0.5	0.5
FTGN934?	Natural	Transaction enquiry	0	1	1
FT3425	Natural	DM Contingency	2	2	2
FT3594	Natural	Accounting feed generation	0.5	1	1
FT3516	Natural	Reset Payments Release Date and Time	0.5	1	1
FTUN038	Natural	Departmental end of day	1	3	1
FT3222/7/8	Natural	Queue status enquiry	1	2	1
FTGN900	Natural	Control totals	0	1	1
FT4055	Natural	Overnight Batch for held X border			
		TOTAL ESTIMATES	26.5	56.5	49.0

5.3.2 NEW PROGRAMS

NAME	LANGUAGE	TITLE	Spec estimate	Code estimate	Test estimate
FT4700	Natural	Overnight reset of Flow Control balances	0.5	2	1
FT4701	Natural	Batch load of CMD table for EBA/ECU	2	2	2
FT4702	Natural	Batch load of CMD table for German	2	2	2
FT4703	Natural	Overnight deletion of FT-FLOW-CONTROL	1	2	2
FT4710	Natural	Start/Stop Routing and Flow Control BGD's	0.5	0.5	0.5
FT4712	Natural	Online Flow control Program	2	4	2
FT4712N*	Natural	Online Flow control sub-programs	2	4	2
FT4715	Natural	Flow control static data maintenance	2	3	2
FT4716	Natural	Pay routing Static data update ECC	2	3	2
FT4717	Natural	Pay routing Static data update CMD?	2	3	2
FT4718	Natural	New Euro (FFT) Queue Status Enquiry	1	3	2
FT4720	Natural	CHAPS/EBA Euro Clearing Contingency	1	1	2
FT4721	Natural	French Clearing Contingency	1	1	2
FTK0090	Cobol	Payment Router	10	10	10
FTK0091	Cobol	Bilat Flow Controller	7	10	6
FTK0092	Cobol	Debit Cap Flow Controller	5	10	6
FTK0093	Cobol	Prod gen validation module	3	5	4
FTK0094	Cobol	Common payment channel validation	5	10	5
FT14??	Natural	Display FT-FLOW-CONTROL	0	1	
	Natural	Display FT-FLOW-TRANS	0	1	
	Natural	Update FT-FLOW-CONTROL	0	1	
	Natural	Update FT-FLOW-TRANS	0	1	
		TOTAL	49	79	54.5

5.4 FILE CHANGES

5.4.1 Changes to FT-TRANS

New Fields :

Field	*Format*	*Description*
FT-CLEARING	A9	Indicate which channel to use (e.g.: /RTGS/ELS)
FT-URGENT-IND	A1	'Y' or 'N'
FT-TARGET-IND	A1	'Y' or 'N'

5.4.2 New FT-FLOW-CONTROL database file

All the agreed limits that the Flow Control processors will use to control payments will be stored on a new FTS database file called FT-FLOW-CONTROL. The limits held will be :

1. A debit balance limit for each paybank and channel combination. This will reflect the bilateral relationships chase has set up with other banks.

2. A debit balance limit for each channel. This will reflect the limit imposed on Chase by the clearing Central Bank.

Also held on this database will be other information that will be of use to Ops.

The layout of the records will be :-

Field	*Format*	*Description*
KEY-DATA		
BRANCH	A3	Required as there may be clearing branches other than FFT (eg J.P.Morgan)
BILAT-ID	A11	Identifier for the Clearing member set to XXXXXXXXXXX for debit cap recs NB on EAF or ELS records this field will contain the BLZ code. On any other channels this field will contain the swift address.
CHANNEL	A11	Identifier for the channel, either pay type or our correspondent swift address
FLOW-DATA		
LIMIT	N18.4	Balance Limit agreed for this relationship (stored as a negative amount)
CONTROL-IND	A1	Y - Bilat is controlled, N - bilat is not controlled Set by Ops. On Channel/XXX records this is not set, the system doesnt access it anyway. But instead assumes Y.
BALANCE	N18.4	Current balance
NO-HELD	N9	Number of payments held due to this check
AMT-HELD	N18.4	Total amount of all payments held
MAX-AMT	N18.4	Maximium payment amount allowed for this relationship
BILAT-HOLD-IND	A1	'Y' - hold all records for this bilat/channel, 'N' - dont. Used by the Flow controller tasks. When a payment is held no point trying to release other payments for this Bilat/channel so update this flag to 'Y'. At end of processing updates it back to not held.
MIS-DATA		
NO-RELEASED	N9	No of Payments released passed this check but not acked
AMT-RELEASED	N18.4	Amount of Payments released passed this check but not acked
NO-CREDITS	N9	No of Confirmed Credits received
AMT-CREDITS	N18.4	Amount of Confirmed Credits received

FT4710 needs a superdescriptor of BRANCH/CHANNEL/BILAT-ID. The Bilat Controller can also use this.
Examples of key values on rec

190GEBANL2REAF
190GEBANL2REBA
190GEBANL2RELS
190GEBANL2RSNP
190GEBANL2RTBF
190GEBANL2PBNK2GBL
190PBNK2GBLCHE
190PBNK2GBLEAF
190PBNK2GBLEBA
190PBNK2GBLELS
190PBNK2GBLSNP
190PBNK2GBLTBF
190XXXXXXXXTBF

Superdescriptors

The Online and batch controllers requires the following superdescriptor

BRANCH
BILAT-ID
CHANNEL

5.4.3 New Flow Control transaction database file - FT-FLOW-TRANS

5.4.3.1 General

The Flow control system (both online and background tasks) will have to access the transaction data in various ways. This will be provided by having a number of superdescriptors (at least two large ones). Also some new fields will be required specifically for use by Flow control.

There new supers and fields could be added to FT-TRANS. However, it was felt that this would slow down the existing FTS functions considerably, and a new database file (along the lines of IDR-TRANS) would be preferable. This will be called FT-FLOW-TRANS.

One record will be created on this file every time an FT-TRANS transaction gets to the new STAGE-STATUS OF 'AWAITING FLOW CONTROL CHECKS'.

The records will have a status field that marks its progress through the Flow control process. It will have values of :-

'1' - Awaiting the Bilat check
'2' - Awaiting the Debit Cap check
' ' (Space) - Released to Product generation

The Released status is set to space so that old records do not appear in the Adabas indexes and therefore slow the system down.

5.4.3.2 *Record layout*

The fields on this file will be :-

Field	*Format*	*Description*
PAYMENT-DATA		
BRANCH	A3	Required because there may be other clearing branches as well as FFT (eg J.P.Morgan)
STATUS	A1	As described above. Must be Null Suppressed.
CLEARING-GROUP	A3	Used to stream the tasks. Value populated by the Router from table CLG Group
HELD IND	A1	This will have two possible values Yes and No. If a record is held due to the Bilat check then its status will be 'Awaiting Bilat' and its HELD IND will be set to 'Y'.
BILAT ID	A11	The swift address of "Their correspondent" bank that we are sending the payment to (via clearing). I.E the Clearing member.
CHANNEL	A12	The clearing mechanism chosen for this payment taken from FT-TRANS. PAYMENT-TYPE or for Correspondent banking use our correspondent swift address with 'Z' in front.
PAYMENT-TYPE	A3	Payment type from FT-TRANS. Needed to group correspondents into one stream of 'CPO'.
URGENT IND	N1	If the payment is urgent then this ind will be set to "1". Otherwise set to "2".
AMOUNT	P14.4	Credit amount from FT TRANS.CRAMT
FT-TRANS-ISN	P8	The ISN of the transaction record on FT-TRANS
AUDIT-DATA		
DATE-CREATED	P8	This field will hold the date the record was created on this database file. For Audit purposes only. DDMMCCYY
TIME-CREATED	N6	This field will hold the time the record was created on this database file.For Audit purposes only. HH:MM:SS 24 hour clock.
ACTION-ID	A7	Op id of user that moved this payment from flow control, or blank if there was no manual action. For Audit purposes only
ACTION-TIME	N6	HH:MM:SS 24 hour clock. For Audit purposes only
ACTION	N1	Stored online option used - 1 Reroute - 3 Cancel - 5 Repair - 6 Release - 7 Released by background task

5.4.3.3 *Superdescriptors*

The Bilat Flow controller will require the following superdescriptor called 'BILAT-CHECK'

BRANCH
STATUS
CLEARING-GROUP
URGENT-IND
PAYMENT-TYPE
BILAT-ID
AMOUNT

(NB in Adabas version 6 up to 20 fields are now allowed in any Superdescriptor)

•The Debit Cap Flow Controller will require the following superdescriptor called 'DEBIT-CAP-CHECK' :-

BRANCH
STATUS
CLEARING-GROUP
CHANNEL
URGENT-IND
AMOUNT

The Online Flow Control process will require the following superdescriptors:-

Superdescriptor 1	*Superdescriptor 2*	*Superdescriptor 3*
BRANCH	BRANCH	BRANCH
HELD	HELD	HELD
CHANNEL	CHANNEL	CHANNEL
STATUS	URGENT-IND	BILAT-ID
	STATUS	STATUS
	BILAT-ID	URGENT-IND
	AMOUNT	AMOUNT

5.4.4 Table BGD

As well as adding new records to BGD, note that the new records will be utilising the second data line for extra critical times if required. Hence the table profile will need changing to include these.

The new records below assume that on 1/1/99 we will have just two clones of each Flow controller - one for RTGS and one for NETS +Correspondent banking . I.E. 6 in total.

```
TABLE-ID: BGD  DESC: TRANSACTION ID
                     DELAY|HELD RECORD|CRITICAL TIME START|
                     CRITICAL TIME END|HELD RECORD DELAY|BKG TRAN DATA

 SEL VER TABLE-KEY            TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- -------------------- --------------------------------------------------
      Y  F90A                 0500 0003 0000 0000 0000 NF90BABND002   ???616   Y
      Y  F91A                 0500 0003 0000 0000 0000 NF91AABND001   NET616   Y
                              0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
      Y  F91B                 0500 0003 0000 0000 0000 NF91BABND002   RTS616   Y
                              0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
      Y  F92A                 0500 0003 0000 0000 0000 NF92AABND001   NET616   Y
                              0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
      Y  F92B                 0500 0003 0000 0000 0000 NF92BABND002   RTS616   Y
                              0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
```

5.4.5 Table CLG

This is a new table. It allows the grouping of different clearing channels into a group that one Flow control stream will then process. For 1/1/99 we will have just two clones of Flow Control one for RTGS and one for net + correspndent banking. The clearing group values must correspond to the values entered on the BGD table for the flow control tasks. Therefore entries required on this table will be :-

```
TABLE-ID: CLG  DESC: PAYMENT TYPE
                     CLEARING GROUP

 SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- ------------------- --------------------------------------------------
      Y  EAF                 NET
      Y  EBA                 NET
      Y  ELS                 RTS
      Y  CHE                 RTS
      Y  SNP                 NET
      Y  TBF                 RTS
      Y  CPO                 NET
```

5.4.6 CMD - Clearing channel member details and preferred routing method .

The table details will consist of the following.

Field	Format	Remarks
MEMBER-SWIFT	A11	Swift address of paybank.
CHANNEL	A3	Must be on the Channel table. (Exception 'TGT' and 'COR' will not be added to ECC table).
PRIORITY	N2	Used by the router to prioritise channels when more than one route available.
DESTINATION-CLEARING	A3	If the Channel information indicates that TARGET is to be used, this data will indicate the RTGS that their correspondent is a member of and which they wish us to use to clear through TARGET.
START-DATE	N8	Date when paybank first becomes a member.
END-DATE	N8	Date when paybank ceases to be a member.

Key: MEMBER-SWIFT (A3)
CHANNEL (A3)
PRIORITY (N2)
DESTINATION CLEARING (A3)

DATA START-DATE
END-DATE

5.4.7 Table ECC - Euro Clearing Channel information.

Field	Format	Remarks
FTS-BRANCH	N3	FTS branch
CLEARING-ID	A3	All valid clearing channels not only those that FFT is a member of.
CLEARING-MEMBER	A1	'Y'es or 'N'o
CLEARING -STATUS	A1	'O'pen or 'C'losed (Always closed if FFT is not a member).
CLEARING -TYPE	A4	Net or RTGS
CLEARING -NAME	A30	
CLEARING-DEFAULT-PRIORITY	N2	Unique per Branch
CLEARING-CUT-OFF-TIME	N7	Cut-off time for normal payments.
SETTLEMENT-CUT-OFF-TIME	N7	Cut-off time for setlement payments.
MINIMUM-VOLUME	N8	If channel has any minimum volume requirements
MINIMUM-VALUE	N12	If channel has any minimum value requirements
CHASE-CORRESPONDENT	A11	This will hold details on the correspondent that CHASE uses to access the clearing channel. Swift-address ?
CLEARING -MEMBER-CAPTURE	A1	'M'anual, 'E'lectronic. This detail will be used when maintaining the Members of clearing table information. See below.
CLEARING -CONTROLLED	A1	'Y' - needs control, 'N' - no control needed. (Used by flow control)
CLEARING -HOLIDAY-TABLE	A3	'HOL' or 'CUR'
CLEARING -COUNTRY-CODE	N2	Country code where the clearing operates.
CENTRAL-CLEARING-BANK	A12	This will hold details on the central clearing bank for the channel. For TARGET payments, this will be the receiving bank.
NOSTRO-ACC-NO	N10	Holds the nostro account number for the clearing.

Key: FTS-BRANCH
CHANNEL-ID (A3)
FFT-MEMBER (A1)
CHANNEL-STATUS(A1)
CHANNEL-TYPE (A1)

5.4.8 LCP Table - Local Clearing Payment Type. (Changes)

The LCP Local Clearing Payment Type table contains default payment type details for each of the FTS branch clearings. This default will be changed for 616 to cater for the new CLG payment type.

```
TABLE-ID: LCP  DESC: CLEARING PAYMENT-TYPE
                     BRANCH (3)
                     PAY-TYPE (3)

SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
--- --- ------------------- ----------------------------------
     Y  616                 CLG
```

5.4.9 Table QSE

```
TABLE-ID: QSE  DESC: QUEUE STATUS ENQUIRY
                     OFFSET
                     TSQNAME

 SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- ------------------- ---------------------------------
      Y  001 1               F90AABND
      Y  002 1               F91AABND
      Y  003 1               F92AABND
```

5.4.10 Table STF

This table ensures Background Task Start/Stop function displays tasks in the required order. New entries are required for the new background tasks as follows;-

```
TABLE-ID: STF  DESC: START/STOP FUNCTIONS
                     APPL-ID/ORDER-NO
                     TRANS-ID/DESC/START-IND/STOP-IND/TERM-ID(X5)

 SEL VER TABLE-KEY           TABLE-DATA (FIRST 50 CHARACTERS)
 --- --- ------------------- --------------------------------------------------
      Y  FLOW    01          F90AFTT EURO PAYMENT ROUTER
      Y  FLOW    02          F91AFFT EURO BILAT CONTROLLER
      Y  FLOW    03          F91BFFT EURO BILAT CONTROLLER
      Y  FLOW    04          F92AFFT EURO DEBIT CAP CONTROLLER
      Y  FLOW    05          F92BFFT EURO DEBIT CAP CONTROLLER
```

5.4.11 SST Table (Stage Status)

```
TABLE-KEY                TABLE-DATA
12345678901234567890123456789012345678901234567890123456789012345678901234567890
369XXX
373XXX
374XXX
```

5.4.12 TTY Table (Stage Statu

Current entries :-

TABLE-ID: TTY DESC: TRANSACTION TYPE (BRANCH CODE-PAY OR CRED TYPE)

SEL	VER	TABLE-KEY	TABLE-DATA (FIRST 50 CHARACTERS)
	Y	616CHK	CHK YYYY3370009370039 Y
	Y	616CHQ	CHEQUE YY 5370003370033
	Y	616CPO	CPO YYYY4370003370033
	Y	616DD	DD YYYY3370009370039 Y
	Y	616DFT	DRAFT YYYY4370003370033
	Y	616EAC	CONV YY 5370004370034 YY
	Y	616EAF	EAF YY 4370004370034 YY
	Y	616ELS	ELS YY 4370004370034 YY
	Y	616IAT	IAT YYYY3368001370039 Y
	Y	616MPO	MPO Y YY5370003370003
	Y	616NMC	NMC YYYY5370003370033 N

Change the following entries ;-

TABLE-ID: TTY DESC: TRANSACTION TYPE (BRANCH CODE-PAY OR CRED TYPE)

SEL	VER	TABLE-KEY	TABLE-DATA (FIRST 50 CHARACTERS)
	Y	616EAC	CONV YY 5369004369034 YY
	Y	616EAF	EAF YY 4369004369034 YY
	Y	616ELS	ELS YY 4369004369034 YY

and add the folowing for the new clearing channel payment types for FRENCH,EBA,CHAPS EURO as well as the default payment type of 'CLG':-

	Y	616CLG	CLG	YY	43690113690?? YY
	Y	616SNP	SNP	YY	43690123690?? YY
	Y	616TBF	TBF	YY	43690133690?? YY
	Y	616EBA	EBA	YY	43690083690?? YY
	Y	616CHE	CHE	YY	43690103690?? YY

5.5 SYSTEM INTERFACES

6. ALTERNATIVES CONSIDERED

7. SECURITY

8. PERFORMANCE CRITERIA
   AVAILABILITY
   RESPONSE
   VOLUMES

9. ACCEPTANCE CRITERIA

10. BACKUP/RECOVERY

11. CONTINGENCY

12. HARDWARE/SOFTWARE ENVIRONMENT

13. PRODUCTION CONTROL

14. GENERAL

15. SCHEDULING

16. JCL CHANGES

17. CONVERSION PLAN

18. PILOT PARALLEL RUN

[Insert date.]

[Insert name of addressee company.]
[Insert address of addressee company.]
Attn: [Insert name of appropriate individual at addressee company.]

Re: Purchase Order Enquiry Module Chase TradeTrack

Dear [ ]:

[Insert name of addressee company.] ("you") currently have an agreement with [Insert name of appropriate Chase entity.] ("Chase") pursuant to which Chase provides to you an electronic trade-related service involving letters of credit. In connection with that service, Chase collects certain information and stores it on its computer systems. Some of that information comprises invoice numbers, names of beneficiaries, purchase order numbers, letter of credit numbers and payment numbers ("Information"). You have advised In conjunction with the use of the electronic trade-related service, Chase that you would like to be able to access the Information over the Internet and Chase has agreed to provide that access to you, subject to the terms and conditions of this letter agreement. Those terms and conditions follow:

1. Chase will issue a login identification number and a password. When you want to access the Information over the Internet, you will access the following Internet URL: [Insert the appropriate URL.] As of the date of this letter agreement, that URL ("POEM TradeTrack URL") is within the trade finance pages on the website owned and operated by The Chase Manhattan Corporation and some of its subsidiaries. When you access the POEM TradeTrack URL, you will see a page that contains a link to the Information. That link is labeled [POEM TRADETRACK]. To access the Information, click on that link and, when prompted to do so, enter your login identification number and your password. Chase may change the POEM TradeTrack URL from time to time but, if it does so, it will notify you thereof.

2. You shall safeguard your login identification number and your password. Chase shall not be liable for any use of either or both of the login identification number and the password, whether that use is by individuals whom you authorized to use them or by any other individuals.

3. As of the date of this letter agreement, Chase is not imposing any separate fee or charge in consideration of its providing the Information to you. Chase, however, may impose or assess such a fee or charge, or increase any such a fee or charge then existing, at any time in the future but, in the event that it plans to do so, it will notify you at least [Insert appropriate number.] ( ) days in advance.

4. Either you or Chase may terminate this letter agreement at any time by notifying the other thereof at least five days in advance.

5. As of the date of this letter agreement, the Information will be stored on Chase's computers in Hong Kong. In the event that you access the Information from the United States (or from some other countries other than Hong Kong) during your regular business hours, you may do so at a time that is outside of the normal business hours of Chase's Hong Kong office. In addition, although Chase will attempt to update the Information at least once each business day, the data it uses to do so may be data from the previous day's transactions, so that updated Information at the end of any particular business day in Hong Kong may reflect data captured in Hong Kong as of the end of the immediately preceding business day. Chase therefore does not warrant the timeliness of the Information, nor does it warrant the accuracy of Information. CHASE MAKES NO WARRANTIES OF ANY KIND WITH RESPECT TO

THE INFORMATION INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

[Is reference to the location of the physical server that the customer is accessing required? The flow that will exist upon the implementation of TradeTrack is from HK server (GTS system) to a server in NY within the Chase.com area. The customer will be accessing the NY server, not the HK server. HK server will replicate the data to the NY server. When this product expands in its usage, the server may be located at any Chase Branch. Therefore, would recommend not referring to a physical location]

6. In no event shall Chase be liable (no matter what the cause of action) for any damages of any kind pursuant to, or in connection with, this letter agreement. In the event, however, that Chase begins to impose a separate fee or charge pursuant to section 3. of this letter agreement, beginning on the effective date of such fee or charge: (i) the first sentence of this section 6. shall not apply and (ii) in no event shall Chase be liable (no matter what the cause of action) for any damages of any kind that, in the aggregate, exceed in any year the amount determined by multiplying the amount of such fee or charge (or, in the event that such fee or charge is not a monthly fee or charge, the monthly equivalent of such fee or charge) by three. In no event shall Chase be liable (no matter what the cause of action) for any indirect, special or consequential damages of any kind, even in the event that it is advised of the possibility that such damages may arise, occur or result.

7. No modification of this letter agreement shall be effective unless it is in a writing that is signed by authorized representatives of Chase and you. No waiver of any right or remedy under this letter agreement shall be effective unless it is in a writing that is signed by an authorized representative of the party to be charged therewith.

8. This letter agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of New York, United States of America, without giving effect to the principles of conflict of laws of such state. Any action, proceeding or suit brought with respect to this letter agreement shall be brought only in courts located in the Borough of Manhattan in such state.

Please indicate your agreement with the terms and conditions of this letter agreement by signing the enclosed copy of this letter agreement on the lines provided for that purpose . Then return that executed copy to me.

Very truly yours,

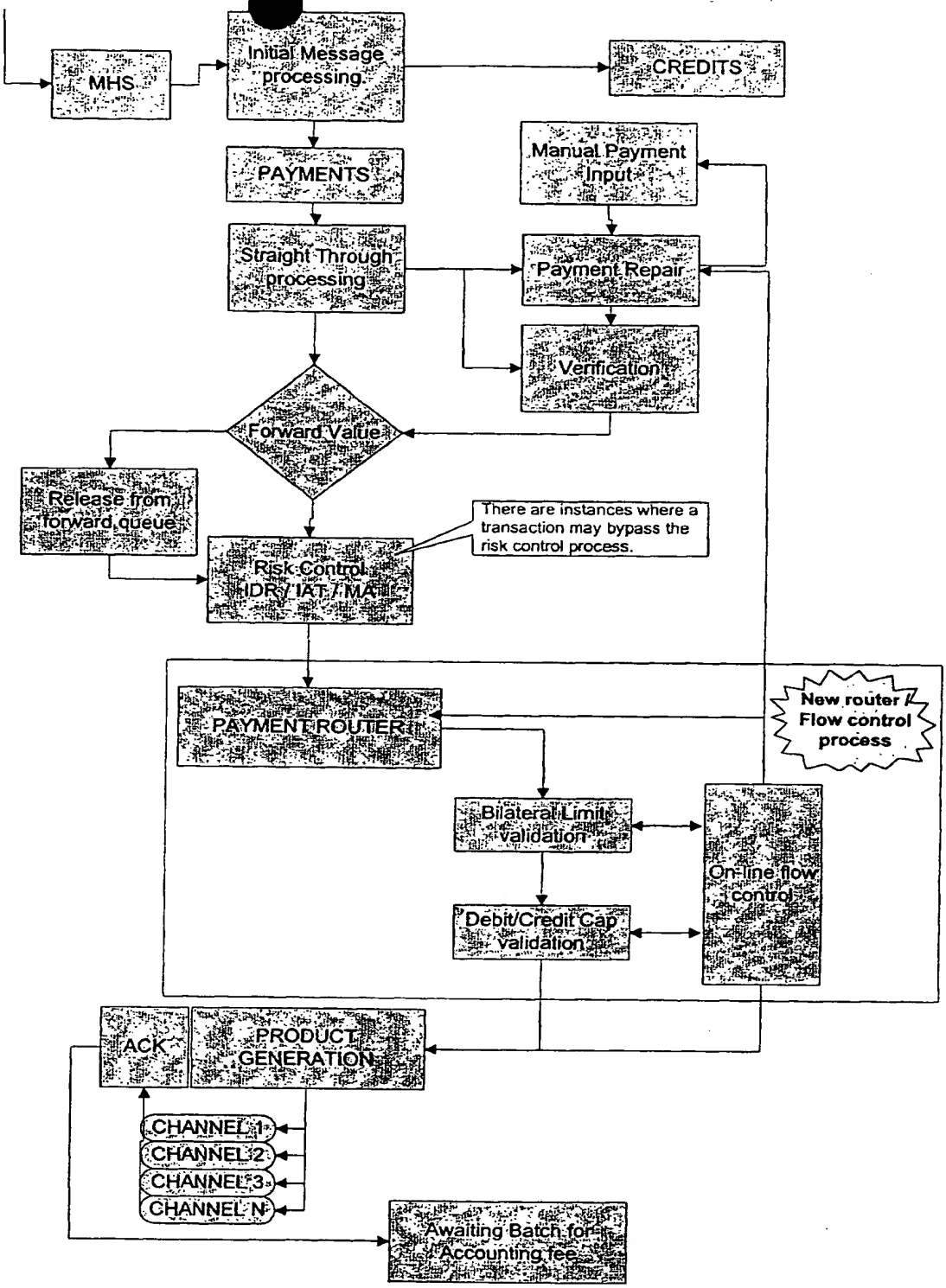
[Insert name.]
[Insert title.]

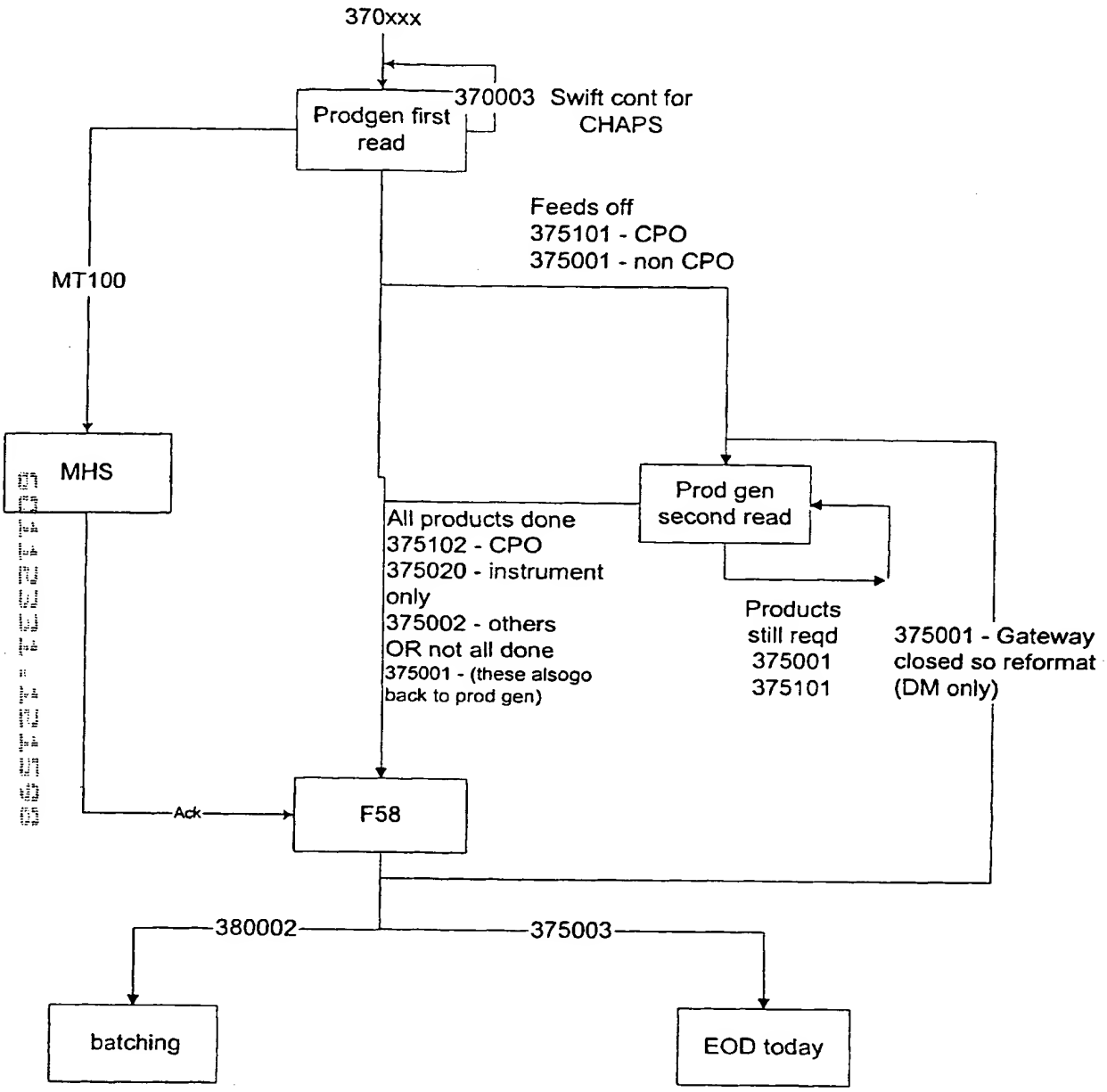
AGREED:
[INSERT NAME OF COMPANY.]

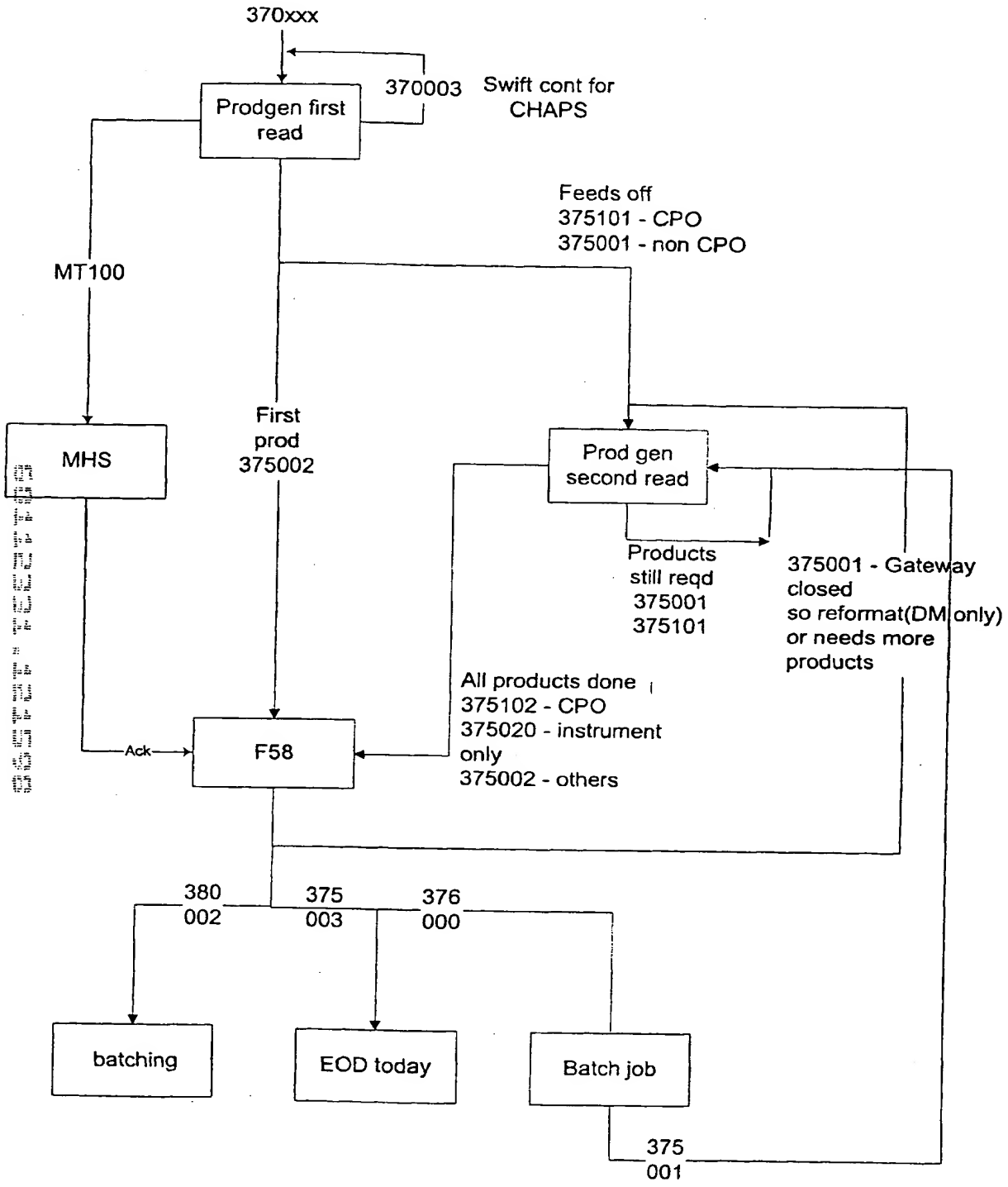
By:
Title:
Date:
209645:v01

APPENDICES CONTENTS

APPENDIX A - NEW PROCESSING FLOW FOR FTS




370xxx
Prodgen first read
370003 Swift cont for CHAPS
Feeds off
375101 - CPO
375001 - non CPO
MT100
MHS
Prod gen second read
All products done
375102 - CPO
375020 - instrument only
375002 - others
OR not all done
375001 - (these alsogo back to prod gen)
Products still reqd
375001
375101
375001 - Gateway closed so reformat (DM only)
Ack
F58
380002
375003
batching
EOD today


370xxx
Prodgen first read
370003
Swift cont for CHAPS
Feeds off
375101 - CPO
375001 - non CPO
MT100
MHS
First prod 375002
Prod gen second read
Products still reqd
375001
375101
375001 - Gateway closed
so reformat(DM only)
or needs more products
All products done
375102 - CPO
375020 - instrument only
375002 - others
Ack
F58
380 002
375 003
376 000
batching
EOD today
Batch job
375 001

APPENDIX C - FLOW CONTROL [illegible]IC DATA MAINTENANCE SCREENS

Screen 1:

```
FTS FLOW CONTROL MAINTENANCE                              HH:MM   DD/MM/YY


        Enter  CHANNEL ID  ____________
               BILAT-ID    ____________










PF3= BACK  PF12= MENU
                                                          FT4713M1
```

Screen 2:

```
FTS FLOW CONTROL MAINTENANCE  SUMMARY SCREEN              HH:MM   DD/MM/YY
   CHANNEL ID    BILAT-ID     ________LIMIT_________     _MAXIMUM AMOUNT__
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
_  XXXXXXXXXXX  XXXXXXXXXX  99999999999999999.9999       99999999999999999.9999
PF2= SELECT  PF3= BACK  PF7= DOWN PF8= UP  PF12= MENU
                                                   FT4713M2
```

FTS FLOW CONTROL MA ANCE DETAIL SCREEN HH:M[redacted]D/MM/YY

CHANNEL	XXXXXXXXXXX
BILAT-ID	XXXXXXXXXXX
CONTROL-IND	X
LIMIT	999999999999999999.9999
MAXIMUM AMOUNT	999999999999999999.9999
BALANCE	999999999999999999.9999
NO. OF PAYMENTS HELD	999999999
AMOUNT HELD	999999999999999999.9999
NO. OF PAYMENTS RELEASED	999999999
AMOUNT RELEASED	999999999999999999.9999
NO. OF PAYMENTS ACKED	999999999
AMOUNT ACKED	999999999999999999.9999
NO. OF CONFIRMED CREDITS	999999999
AMT OF CONFIRMED CREDITS	999999999999999999.9999

PF2= UPD PF3= BACK PF4= NEXT PF12= MENU

FT4713M3

Screen 3:

Note: CONTROL-IND must not be displayed for Channel /XXXXXXXXXXX data

```
BRCH 616 DOE 205  FTS QUEUE STATUS ENQUIRY - DOE 205 PAYMENTS  10:56 ON
   2  AWAITING STRAIGHT THROUGH.....          I.ACC P.ORD CHAPS INSTR   ALL
   3  AWAITING BLOTTER COMPLETION.....          5     1     8           71
   4  AWAITING COMPLETION/RETURNED FROM VERIFY..  7     1    45           53
   5  AWAITING VERIFICATION.....               20    65   252     5    342
   6  AWAITING SIGHT VERIFICATION.....          5          9     2     16
   7  FORWARD VALUED TRANSACTIONS.....         88         290    41    419
   8  AWAITING CLC APPROVAL.....
   9  AWAITING MARKETING APPROVAL.....          2     1    25     1     29
  10  IN IDR - AWAITING EXCESS CALCULATION.....
  11  IN IDR - AWAITING EXCESS APPROVAL.....   15     3   189     1    208
  12  AWAITING GSS IDR APPROVAL.....                     129           129
  13  IAT'S AWAITING AUTOMATCH PROCESSING.....
  14  IAT'S AWAITING MANUAL MATCH PROCESSING....75                       75
  15  IN DELAY AWAITING RELEASE.....
  16  AT PAYMENT ROUTING.....
  17  AT FLOW CONTROL.....                           1                    1
  18  AT PRODUCT GENERATION.....                                 58     58
  19  PENDING REMOVAL.....                                1              3

 QUEUE 1  SRCE    (A,M) OR V/DATE         BACKVAL    CURR      EXC    CAT    DOE
PF2=DET, PF3=BACK, PF4=LIST, PF9=TOTALS, PF16=CR. QUEUE      205
PF5=FLOW CONTROL, PF10=BREAKDOWN 15-18                  FT4732M1  FT4732  030
```

There are two new options from this screen, PF10 to go to a breakdown screen for queues 15-18 (described below) and PF5 to go to the Online Flow Control screens.

The first screen will look very similar to and in fact be based on the current Queue Status Enquiry Function. The Product Generation Queues are summarised into one line. The At Delay queue now includes At Delay Awaiting Prod Gen and the new At Delay Awaiting Payment Routing (369XXX).
There are two new queues, 1 for payments at Flow Control (374XXX) and 1 for payments at Payment Routing (373XXX). The Flow Control queue is a summary of payments at Bilat Check and Debit Cap Check.

PF10 to go to the Breakdown screen

```
BRCH 616 DOE 205  FTS QUEUE STATUS ENQUIRY - DOE 205 PAYMENTS  10:56 ON
                                                  I.ACC P.ORD CHAPS INSTR   ALL

 1 AT DELAY AWAITING PAYMENT ROUTING.....

 2 AT FLOW CONTROL BILAT CHECK...........

 3 AT FLOW CONTROL DEBIT CAP CHECK.......

 4 AT DELAY AWAITING PRODUCT GENERATION..

 5 AT PRODUCT GENERATION - MESSAGE DELIVERY..

 6 AT PRODUCT GENERATION - MESSAGE ACKNOWLGMT

 7 AT PRODUCT GENERATION - WAITING SERIAL NO.

 8 AT PRODUCT GENERATION - OVERNIGHT HOLD....


  QUEUE 1   SRCE    (A,M) OR V/DATE         BACKVAL     CURR      EXC    CAT    DOE
PF2=DET, PF3=BACK, PF4=LIST, PF9=TOTALS, PF12=MENU, PF16=CR. QUEUE      205
PF5=FLOW CONTROL                                          FT4732M2   FT4732   030
```

The second screen is a breakdown of queues 15-18 on the first screen and is accessed via the PF10 key from the first screen. It includes:

At delay awaiting Payment Routing. This is a new status 369XXX and is for payments going through the new processes (Payment Routing and Flow Control).

At Flow Control Bilat Check. Stage status of 374XXX, all payments will be within the Flow Control Function awaiting the bilat check or held because of the bilat check.

At Flow Control Debit Cap Check. Stage status of 374XXX, all payments will be within Flow Control Function awaiting the Debit Cap check or held because of debit cap check.

At Delay awaiting Product Generation. This is a current queue status, will be all payments at 370XXX.

At Product Generation - The next four queues are for payments at various stages of Product Generation and currently exist on Queue Status Enquiry.

PF5 to go to Online Flow Control

Pressing PF5 will take users to the Online Flow Control screens. Should be able to toggle between these screens and the Queue Status Enquiry functions (from either screen).

F1.0 German Clearing.

```
BRCH 616 DOE 205  FTS PAYMENTS DM  CONTINGENCY PROCESSING   15:45 ON 20Nov97

     TOTAL NUMBER OF DM PRODUCTS REJECTED BY THE LZB : 0

     1.  ROUTE ALL REJECTED PAYMENTS FOR REPROCESSING

     2.  ROUTE INDIVIDUAL REJECTED PAYMENT FOR REPROCESSING

     3.  ROUTE OTHER COMPLETED PAYMENT FOR REPROCESSING

     4.  ROUTE INDIVIDUAL PAYMENT TO PAYMENT ROUTER

         ENTER OPTION  :

         ENTER TRN     :              (OPTIONS 2,3 AND 4 ONLY)


       PF2=ACK  PF3=BACK  PF9=REFRESH TOTALS  12=MENU
                                                    FT3415M1 FT3425  005
```

F2.0 CHAPS Euro Clearing.

```
BRCH 671 DOE 205  FTS PAYMENTS CHE/EBA CONTINGENCY PROCESSING 15:45 ON 20Nov97

    TOTAL NUMBER OF CHE/EBA PRODUCTS REJECT AT CLEARING: 0

    1.  ROUTE ALL REJECTED PAYMENTS FOR REPROCESSING

    2.  ROUTE INDIVIDUAL REJECTED PAYMENT FOR REPROCESSING

    3.  ROUTE OTHER COMPLETED PAYMENT FOR REPROCESSING

    4.  ROUTE INDIVIDUAL PAYMENT TO PAYMENT ROUTER

        ENTER OPTION  :

        ENTER TRN     :              (OPTIONS 2,3 AND 4 ONLY)


      PF2=ACK  PF3=BACK  PF9=REFRESH TOTALS  12=MENU
                                                   FT4713M1 FT4713
```

F3.0 French Euro Clearing.

```
BRCH 671 DOE 205  FTS PAYMENTS FRENCH CONTINGENCY PROCESSING  15:45 ON 20Nov97

    TOTAL NUMBER OF FRENCH PRODUCTS REJECTED BY CLEARING: 0

    1.  ROUTE ALL REJECTED PAYMENTS FOR REPROCESSING

    2.  ROUTE INDIVIDUAL REJECTED PAYMENT FOR REPROCESSING

    3.  ROUTE OTHER COMPLETED PAYMENT FOR REPROCESSING

    4.  ROUTE INDIVIDUAL PAYMENT TO PAYMENT ROUTER

        ENTER OPTION  :

        ENTER TRN     :              (OPTIONS 2,3 AND 4 ONLY)


      PF2=ACK  PF3=BACK  PF9=REFRESH TOTALS  12=MENU
                                                  FT4714M1 FT4714  005
```

APPENDIX G - ECC STATIC DATA [redacted] INTENANCE SCREENS

G1.0 Screen 1: Enter CLEARING ID and mode of table access

```
BRCH: 671  DOE: 205      EURO CLEARING CHANNEL INPUT          11:30 ON 06DEC97




        PLEASE ENTER CLEARING ID      XXX
                       OPTION         _  (A)DD
                                         (M)ODIFY









 PF3=BACK,  PF12=MENU
                                                              FT4174M1
```

G2.0 Screen 2:Display table details (maintenance option), enter table details (add option)

```
BRCH: 671  DOE: 205      EURO CLEARING CHANNEL INPUT          11:31 ON 06DEC97

  CLEARING ID             XXX          NAME XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  CLEARING STATUS         X            CLEARING TYPE            XXXX
                                       CLEARING MEMBER CAPTURE  X
                                       CLEARING CONTROLLED      X

  FRANKFURT MEMBER        X            CHASE CORRESPONDENT      AAAAAAAAAAAA

  CUT OFF TIME            NNNNNNN      MINIMUM VOLUME           NNNNNNNN
  SETTLEMENT CUT OFF      NNNNNNN      MINIMUM VALUE            NNNNNNNNNNNN

  CHANNEL HOLIDAY TABLE   XXX          CENTRAL CLEARING BANK    AAAAAAAAAAAA
  CLEARING COUNTRY CODE   XXX          NOSTRO ACCOUNT NUMBER    NNNNNNNNNN

ENTER=VALIDATE,  PF3=BACK,  PF12=MENU
                                                              FT4714M2
```

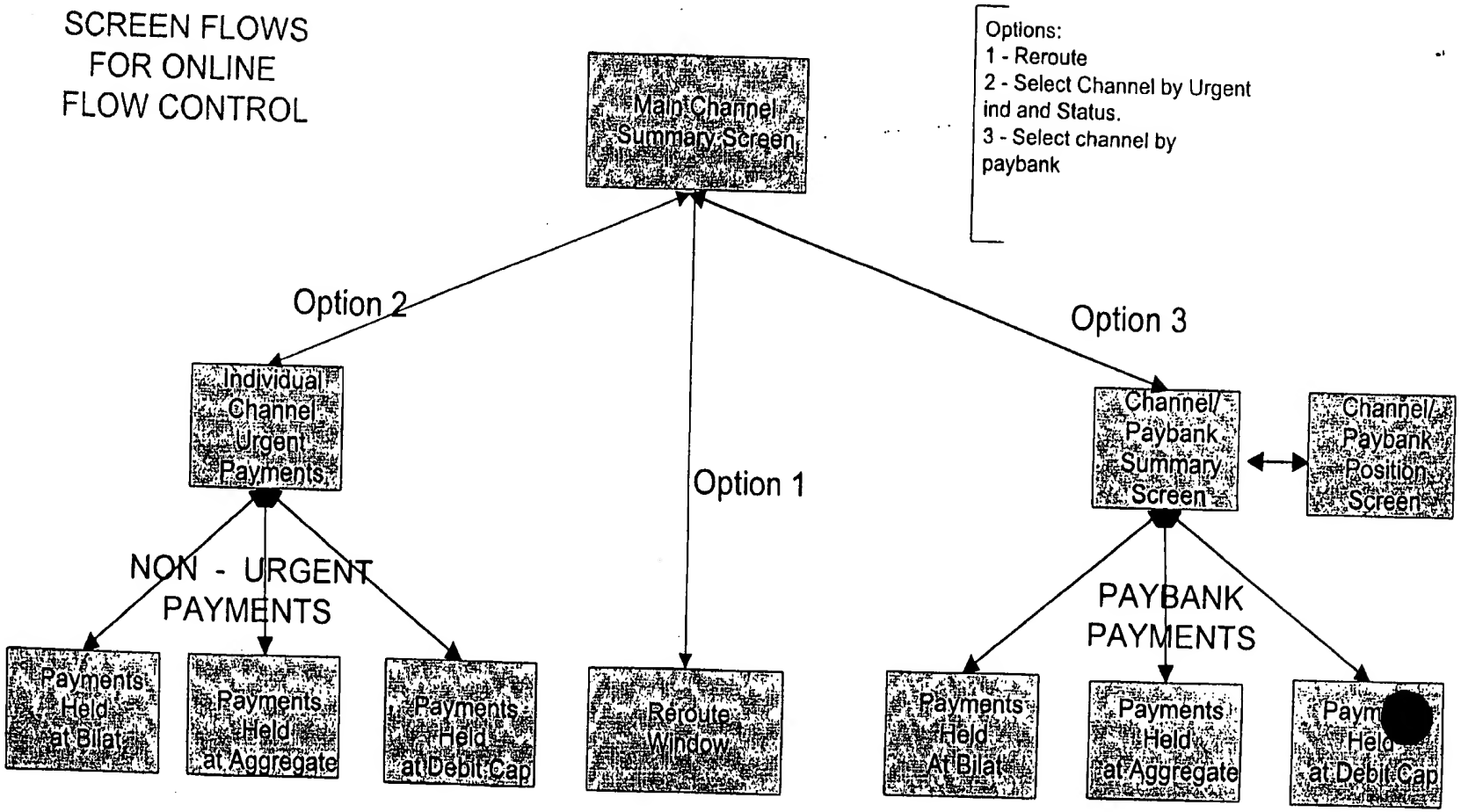
```
BRCH: NNN     DOE: NNN          TABLES-FTS RECORD ENQUIRY          09:44 ON 20NOV97

 TABLE-ID: CMD  DESC: MEMBER|CLEARING|PRIORITY|DESTINATION-CLEARING
                      START DATE|END DATE


                      ....+....1....+....              LAST CHANGED BY
 TABLE-KEY    MASK: CCCCCCCCCCCCCCNNCCC
    EXISTING DATA: DUETDEFF    ELS01     USER ZMT0000  DATE 99999999 TIME 999999
    PENDING  DATA:                       USER          DATE 0        TIME 0

                      ....+....1....+....2....+....3....+....4....+....5
 TABLE-DATA MASK1: NNNNNNNNNNNNNNN
   EXISTING DATA1: 1998010119991231
   PENDING  DATA1:

                      ....+....1....+....2....+....3....+....4....+....5
 TABLE-DATA MASK2: P
   EXISTING DATA2:
   PENDING  DATA2:

 PF3=BACK, PF12=MENU
                                                              FTM21591 FTG2159 003
```

```
BRCH: NNN     DOE: NNN          TABLES-FTS RECORD ENQUIRY          09:55 ON 20NOV97

 TABLE-ID: CMD  DESC: TRANSACTION ID
                      START DATE|END DATE


SEL VER TABLE-KEY            TABLE-DATA (FIRST 50 CHARACTERS)
--- --- ------------------- --------------------------------------------------
     Y  DUETDEFF   ELS01     1998010119991231
     Y  DUETDEFF   EAF02     1998010529991231
     Y  DUETDEFF   SNP03     1999010129991231
     Y  DUIBAEAD   TGT01PTE 1999010129991231
     Y  EEFIITR1   TBF01     1999010129991231
     Y  EEFIITR1   SNP02     1999010119991231
     Y  EEFIITR1   EBA03     1999010119991231
     Y  PACAPHM1   COR01PTE 1999010119991231
     Y  ..............

 PF2=SELECT, PF3=EXIT, PF5=RESTART, PF12=MENU, ENTER=DISPLAY NEXT SCREEN
```

Preferred routing method data. TARGET to be used with their correspondent receiving through PTE clearing.

Preferred routing method data. Correspondent to be used to access the PTE clearing.

Appendix I


SCREEN FLOWS FOR ONLINE FLOW CONTROL
Options:
1 - Reroute
2 - Select Channel by Urgent ind and Status.
3 - Select channel by paybank
Main Channel Summary Screen
Option 2
Option 1
Option 3
Individual Channel Urgent Payments
Channel/ Paybank Summary Screen
Channel/ Paybank Position Screen
NON - URGENT PAYMENTS
PAYBANK PAYMENTS
Payments Held at Bilat
Payments Held at Aggregate
Payments Held at Debit Cap
Reroute Window
Payments Held At Bilat
Payments Held at Aggregate
Payments Held at Debit Cap

APPENDIX I - Continued

12.0 Main Summary Screen

```
FTS PAYMENT CHANNEL ENQUIRY/CONTROL   HH:MM DD/MM/YY
                                                                  Page 1
                    HELD BI-LATS              HELD DEBIT CAP        NBR
    CHANNEL         NBR    AMOUNT(000'S)      NBR    AMOUNT(000,S)  URGENT
    ----------      ------ ------------------ ------ ------------------ ------
  - EAF             999999 9,999,999,999      999999 9,999,999,999   999
  - ELS             999999 9,999,999,999      999999 9,999,999,999   999
  - SNP             999999 9,999,999,999      999999 9,999,999,999   999
  - TBF             999999 9,999,999,999      999999 9,999,999,999   999
  - EBA             999999 9,999,999,999      999999 9,999,999,999   999
  - CHE             999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 001     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 002     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 003     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 004     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 005     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 006     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 007     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 008     999999 9,999,999,999      999999 9,999,999,999   999
  - CORRESP 009     999999 9,999,999,999      999999 9,999,999,999   999

 Enter '?' to view options, PF3 Exit, PF5 Restart
 PF7 Page Back, PF8 Page Forward, PF9 Queue Status Enquiry, PF12 Main Menu
```

From this screen you can

1. Enter '?' to display options available.
2. PF5 to Restart from the top.
3. PF9 to toggle to Queue Status Enquiry.
4. PF8 to page down through other channels/correspondents.
5. PF7 to page back through channels/correspondents.
6. PF12 Main Menu

On entering '?' to view options available the following window will be displayed.

Options

1 - Reroute Channel
2 - Display all Urgent Payments by Status
3 - Display all Paybanks by Channel

Enter Option :X

13.0 Option 2 - Urgent Payments Channel

This option will access the records by Superdescriptor 2 (section 5.2.3.3.) and display all urgent payments for the chosen channel in order of Status (either 'B' or 'D') then paybank then value i.e. the lowest value first. The time displayed will be the time elapsed since the payment first entered Flow Control. The screen will be refreshed each time ENTER is pressed.From this screen you can

1. Enter a '?' to display the different options available for each payment.
2. Enter a Status either 'B' for Bi-lats or 'D' for Debit Cap and PF4 to see the Non-urgent payments.(See later section)
3. Enter the required option.(See later section)
4. PF5 to restart from the top.
5. PF8 to page forward through the urgent payments.
6. PF7 to page back.
7. PF9 Queue Status Enquiry.
8. PF3 to go back to Main Channel Summary Screen.
9. PF12 Main Menu.

```
FTS PAYMENT CHANNEL ENQUIRY/CONTROL      HH:MM DD/MM/YY
                  CHANNEL XXXXXXXXXX SUMMARY SCREEN - URGENT    Page 1

NET BALANCE FOR XXXXXXXXXX IS 999,999,999,999.99

     STATUS   TRANS. REF     PAY BANK      AMOUNT            TIME
     ------   ----------   -----------   --------------    --------
 -     B       01234567     XXXXXXXXXX      1,000,000.00    00:02:00
 -     B       88834567     XXXXXXXXXX      7,367,439.00    00:05:31
 -     B       99996667     XXXXXXXXXX    534,222,456.00    00:07:45
 -     B       23987653     XXXXXXXXXX    725,765,776.00    00:07:57
 -     B       84849593     XXXXXXXXXX    750,543,098.00    00:05:03
 -     B       55434376     XXXXXXXXXX    850,773,452.00    00:03:21
 -     D       01234567     XXXXXXXXXX     98,543,098.00    00:10:09
 -     D       88834567     XXXXXXXXXX    121,765,776.00    00:30:32
 -     D       99996667     XXXXXXXXXX    323,222,456.00    00:14:03
 -     D       23987653     XXXXXXXXXX    424,367,439.00    00:15:40
 -     D       84849593     XXXXXXXXXX    777,999,999.00    00:03:59


Enter '?' to display Options, PF4 for Non-urgent X, PF9 Queue Status Enq,
PF7 Page Back, PF8 Page Forward, PF3 Exit, PF5 Restart, PF12 Main Menu
```

14.0 Option 3 - Display all Pay for Channel

When selected this option will display for each paybank, the number of transactions and the amounts for each status i.e Held Bilat and Held Debit Cap. It will also provide the functionality to be able to toggle left and right to see Bilat and Debit Cap excess positions and limits. This will allow the user to guage how much the Bilat and Debit Cap positions will go to if the Held bilats are released. From either of these screens you can

1. Enter a '?' to display the different options available for each
2. payment.
3. PF10/PF11 to toggle right or left to see Excess Positions and back.
4. Enter required option against any paybank.
5. PF5 to restart from the top.
6. PF8 to page forward through the urgent payments.
7. PF7 to page back.
8. PF3 to go back to Main Channel Summary Screen.
9. PF12 Main Menu.

```
CHANNEL/PAYBANK SUMMARY SCREEN          HH:MM DD/MM/YY

  CHANNEL: XXXXXXXXXX
  NET BALANCE IS 9,999,999,999,999.00

                HELD BI-LATS                HELD DEBIT CAP              NBR
     PAYBANK    NBR     AMOUNT              NBR    AMOUNT               URGENT
     ---------  ------------------------    ------------------------    -----
  -  PAYBANK1   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK2   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK3   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK4   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK5   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK6   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK7   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK8   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK9   99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK10  99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999
  -  PAYBANK11  99999 9,999,999,999,999.00  99999 9,999,999,999,999.00  999


  Enter '?' to view options, PF3 Back, PF5 Restart PF7 Page Back, Status:X
  PF8 Page Forward, PF9 Queue Status Enquiry, PF11 Right, PF12 Main Menu
```

```
CHANNEL/PAYBANK SUMMARY SCREEN          HH:MM DD/MM/YY

  CHANNEL: XXXXXXXXXX
  NET BALANCE IS 9,999,999,999,999.00   (AMOUNTS SHOWN IN MILLIONS)
                BILAT          BILAT        DEBIT CAP      DEBIT CAP
     PAYBANK    EXCESS POSN    LIMIT        EXCESS POSN    LIMIT
     ---------  -----------    -----------  -----------    ---------
  -  PAYBANK1   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK2   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK3   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK4   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK5   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK6   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK7   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK8   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK9   9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK10  9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK11  9,999,999      9,999,999    9,999,999      9,999,999
  -  PAYBANK12  9,999,999      9,999,999    9,999,999      9,999,999


  Enter '?' to view options, PF3 Back, PF5 Restart PF7 Page Back, Status:X
  PF8 Page Forward, PF9 Queue Status Enquiry, PF10 Left, PF12 Main Menu
```

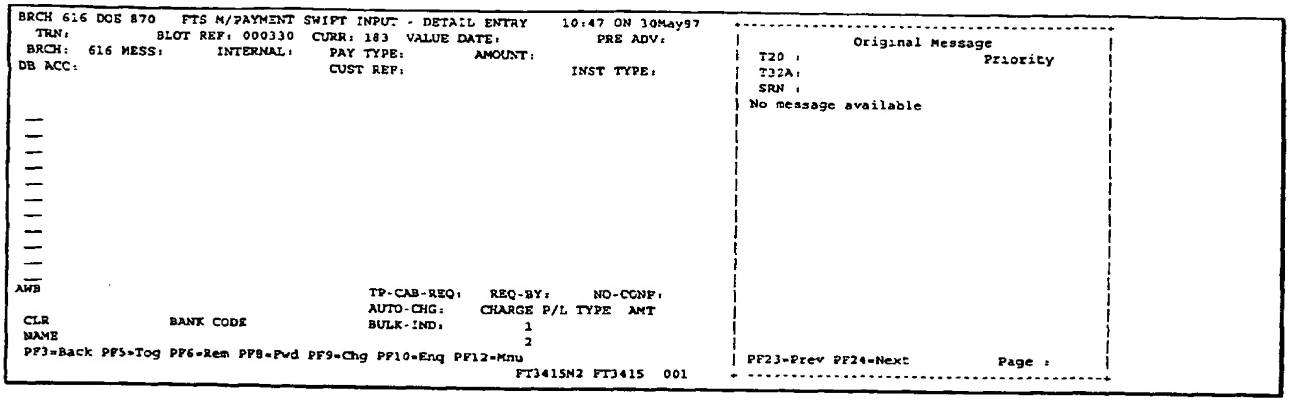
15.0 Non-Urgent Payments for Chosen Channel.

This screen displays non-urgent payments for a channel and status and is displayed in order of amount (smallest first). It is accessed from the Urgent Payments for Channel screen. The access key to retain these records is Superdescriptor 2 (section 5.2.3.3) with the urgent-ind set to space.

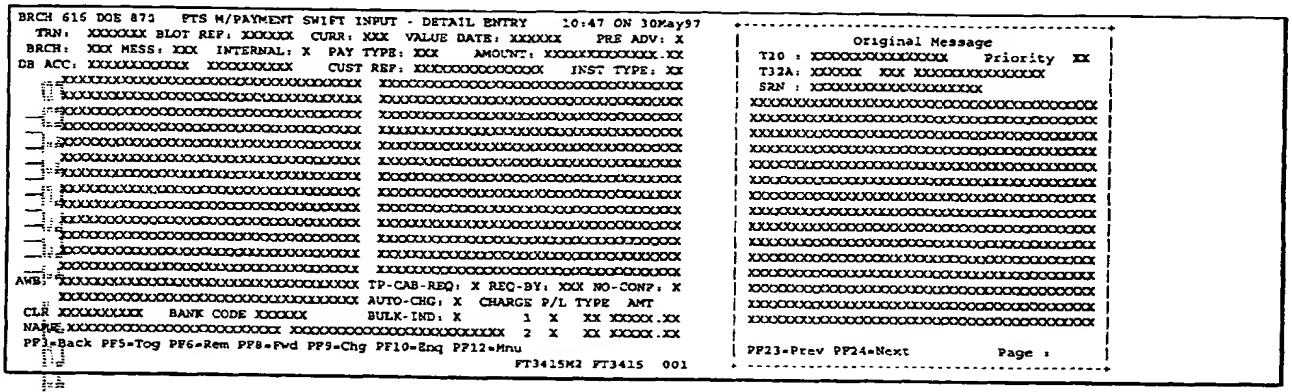
```
FTS PAYMENT CHANNEL ENQUIRY/CONTROL          HH:MM DD/MM/YY
              CHANNEL XXXXXXXXXX SUMMARY SCREEN - NON URGENT  Page 1
 STATUS: HELD AT BILAT
 NET BALANCE FOR XXXXXXXXXX  999,999,999,999.99

     TRANS REF  PAY BANK      AMOUNT            TIME
     ---------  -----------   --------------    --------
  -  0123456    XXXXXXXXXX      1,998,787.00    00:02:00
  -  8883456    XXXXXXXXXX      7,999,988.00    00:05:31
  -  9999666    XXXXXXXXXX     57,999,960.00    00:07:45
  -  2398765    XXXXXXXXXX     72,898,450.00    00:07:57
  -  8484959    XXXXXXXXXX    595,453,321.00    00:05:03
  -  5543437    XXXXXXXXXX    725,773,452.00    00:03:21
  -  0123456    XXXXXXXXXX    750,543,098.00    00:10:09
  -  8883456    XXXXXXXXXX    860,765,776.00    00:30:32
  -  9999666    XXXXXXXXXX    876,222,456.00    00:14:03
  -  2398765    XXXXXXXXXX    998,367,439.00    00:15:40
  -  8484959    XXXXXXXXXX    999,999,999.00    00:03:59


 Enter '?' to display Options.
 PF4 Urgent, PF7 Page Back, PF8 Page Forward, PF3 Back, PF12 Main Menu
```

APPENDIX J. - SINGLE SCREEN LAYOUT

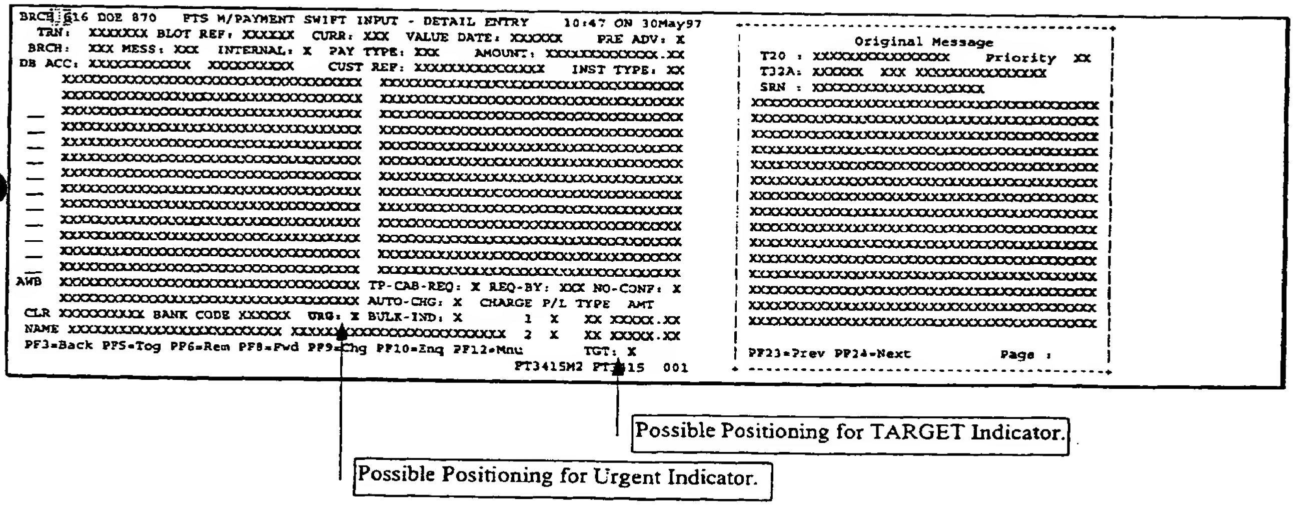
A1. Possible positioning of URGENT and TARGET INDICATORs.



Current Map Layout.



Possible positioning of Urgent Indicator.

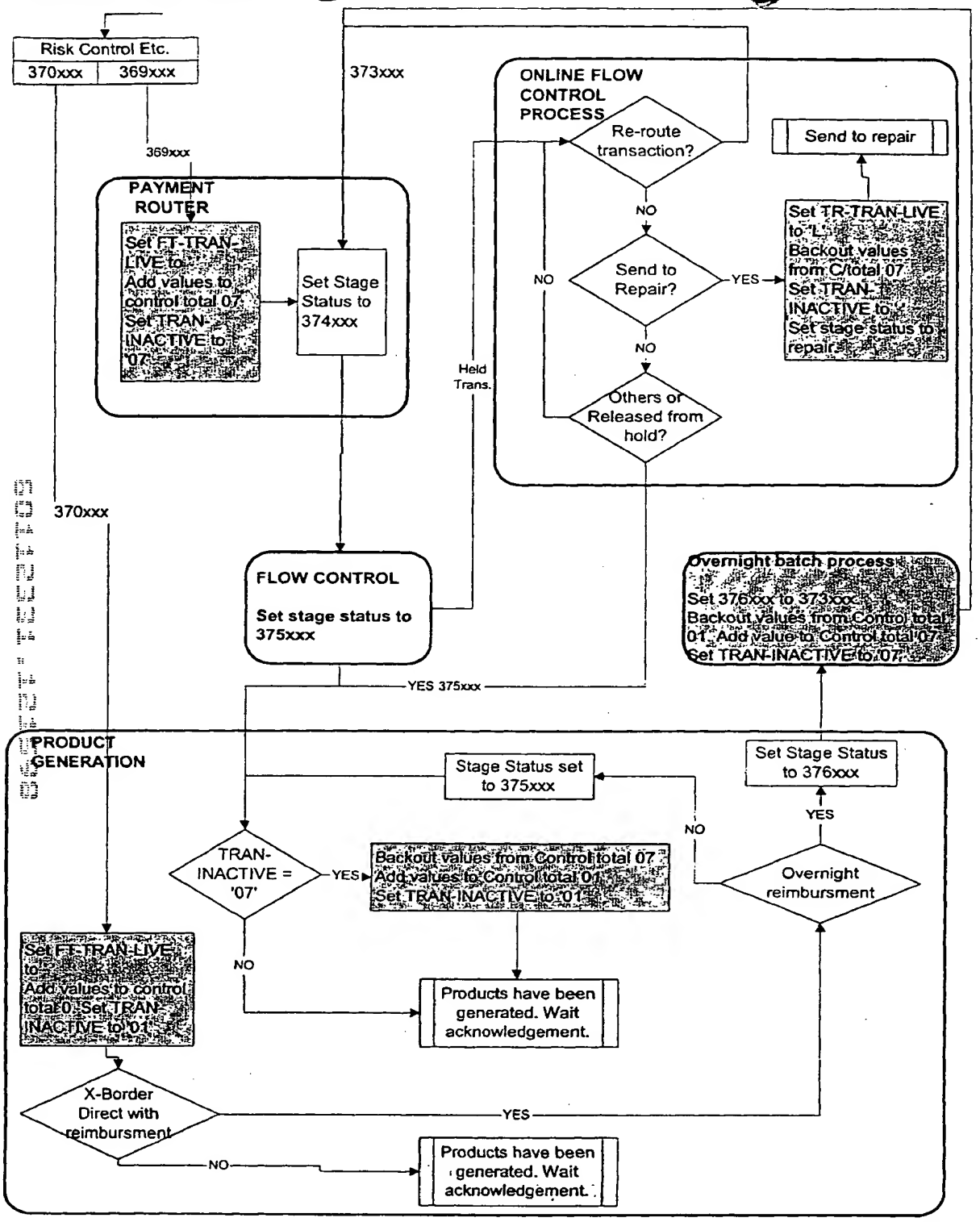


Appendix K - changes to control totals screen.

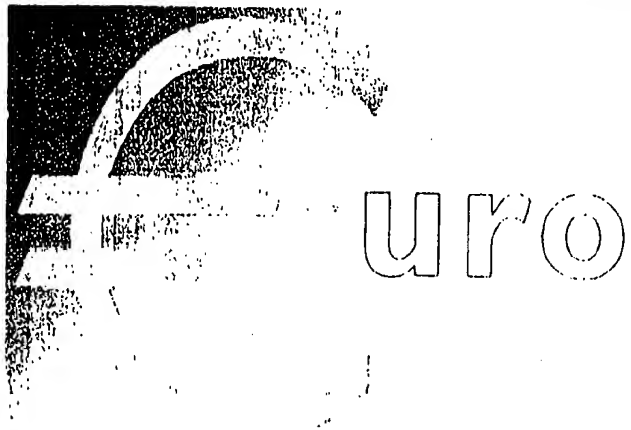
```
BRCH NNN DOE NNN  FTS MANUAL PAYMENTS - TODAYS CONTROL TOTALS  08:47 ON 30DEC97

      INPUT TOTALS                              COUNT            AMOUNT
      BROUGHT FORWARD FROM PREV DAYS.....      12395    552,101,019,289.9200
      RECEIVED VIA T'SLIP/RPI INSTRUCTIONS.        2         25,033.1500
      RECEIVED VIA SWIFT (INCLUDES FTPC) ..     1193     52,857,904,510.3500
      RECEIVED VIA MTS.....                      269     33,999,830,751.4000
      RECEIVED VIA MULTICASH.....                 13         96,944,710.2600
      RECEIVED FROM OTHER CHASE SYSTEMS....      314    276,766,177,775.0600
      MANUALLY INPUT.....                        264     27,782,850,917.0600
                                              -------  ----------------------
                                TOTAL .....     14450    943,604,752,987.2000
      TRANSACTION TOTALS                      -------  ----------------------
      CURRENTLY ACTIVE.....                     7585    556,332,839,998.3300
      AT PAYMENT ROUTING.....                   NNNN    NNN,NNN,NNN,NNN.NNNN
      AT PRODUCT GENERATION.....                5489     48,963,489,474.6000
      REMOVED/CANCELLED.....                      49     27,077,766,638.5500
      AWAITING BATCHING.....                    1327    311,230,656,875.7200
      BATCHED.....                                               0.0000
                                              -------  ----------------------
                                TOTAL .....     14450    943,604,752,987.2000
PF3=BACK, PF6=CCAP   PF7=FTPC   PF12=MENU      -------  ----------------------
                                                                FTGM9001 FTGN900 001
```

New Control Total data for At Payment Routing (contol total 07 - CNTIPTD07)

APPENDIX L - TRAN INACTIVE PROCESSING DIAGRAM

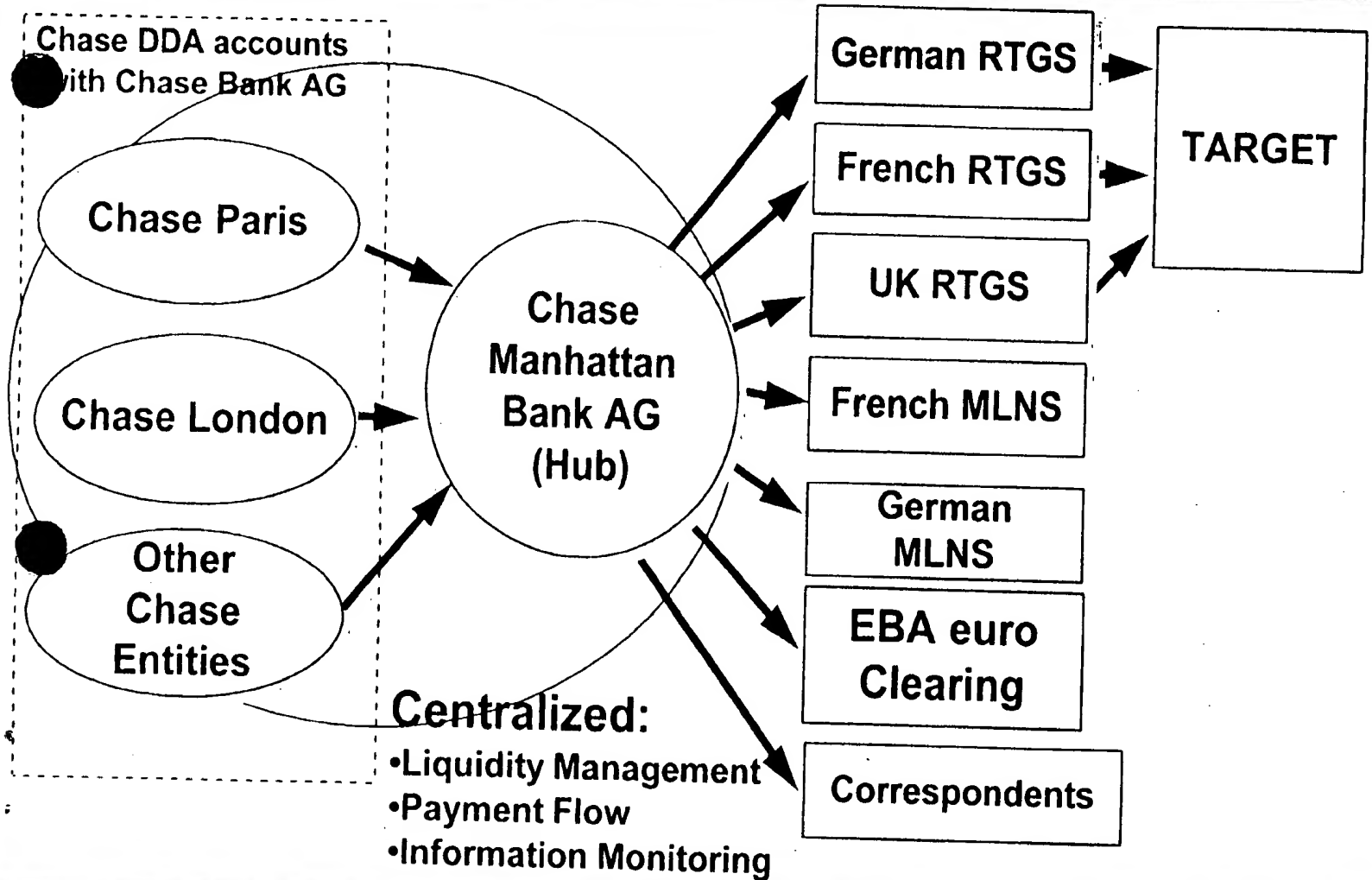


NOTES:



The Chase euro payments architecture

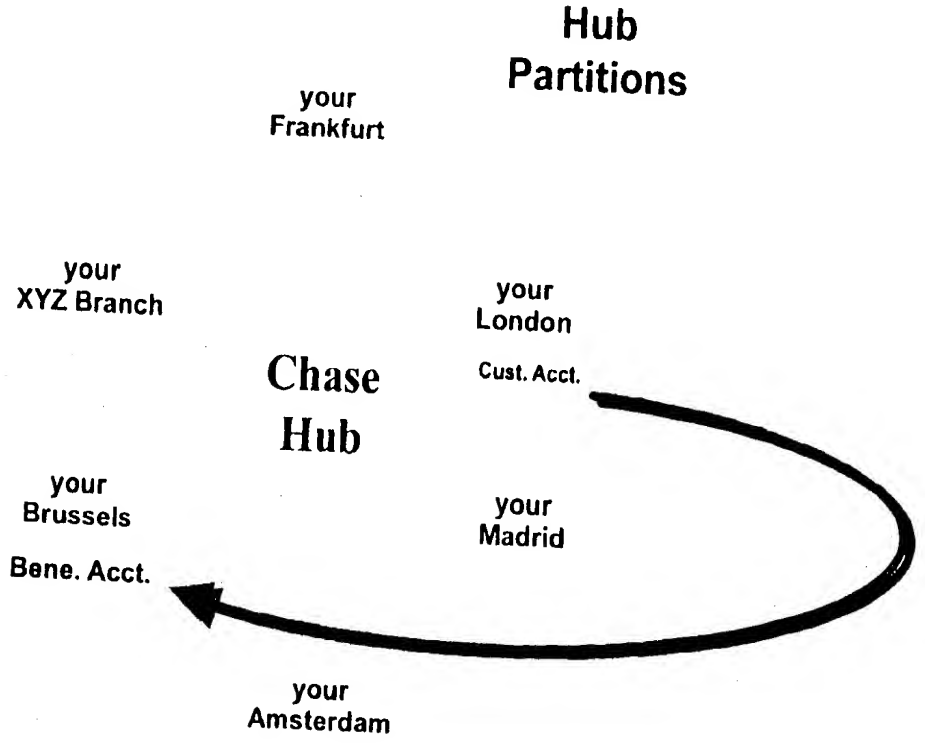
Chase payment network architecture...



Chase Payment example #1...

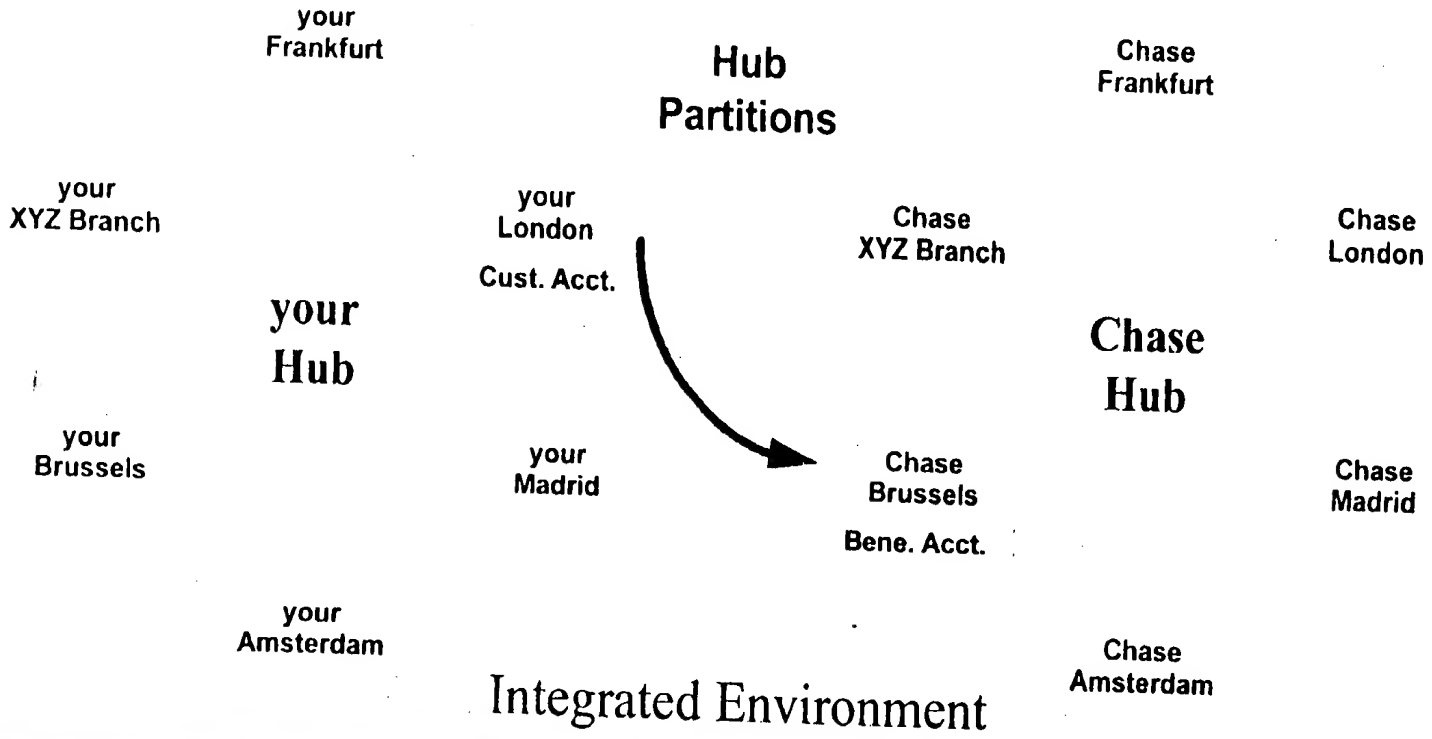
Customer of your London Branch wants to pay customer of your Brussels Branch

All intra-network transactions are book transfers within the hub In this case, your London Branch instructs Chase hub to debit its account and credit your Brussels Branch for the beneficiary's account



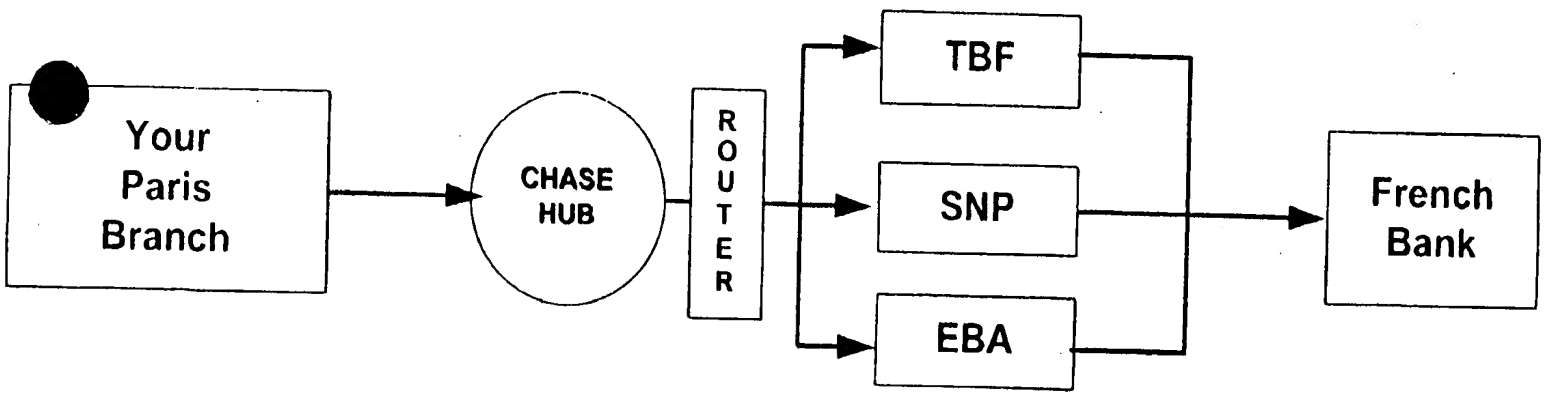
Chase Payment example #2...

- Customer of your London Branch wants to pay customer of Chase russels (or any other bank on system)
  Your London Branch instructs hub to debit its account and credit Chase Brussels



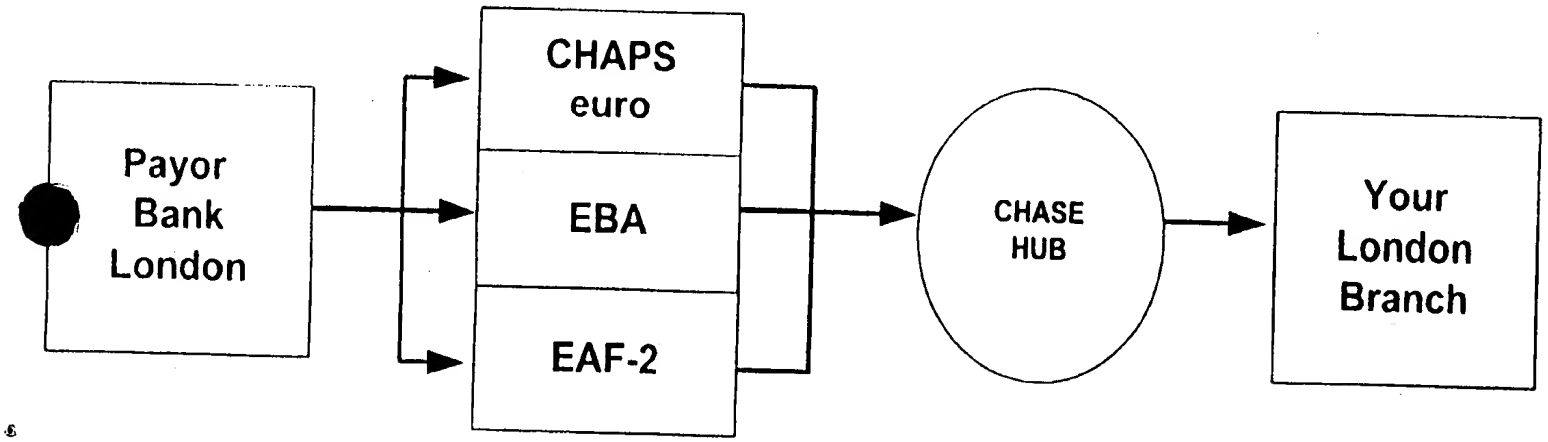
Chase Payment example #3...

- Customer of your Paris branch wants to pay a French beneficiary at its account with a French Bank
  - Your Paris branch instructs hub to debit its account and to pay beneficiary
  - Hub debits your Paris branch and pays French bank for account of beneficiary via SNP, TBF or EBA
  - In the event of a French and EBA payment system disruption, Chase could agree to pay the French bank via ELS



Chase Receipt example ...

- A customer of a London bank wants to make a payment to a customer with an account at your London branch
  - Bank pays hub via EAF-2, EBA or CHAPS euro for credit to the beneficiary's account with your London branch



Euro Training for Chase Treasury Solutions' Global Customer Service Organisation

Nigel Knight
Nov 1998

Agenda

- Euro Background/What Changes
  Response to EMU? - Strategic and Mechanical
  Chase's Preparations for EMU
- Primary Product Segments & Euro Needs
- Euro/NCU Sales Approaches
- Approach to the Transitional Period
  Euro High Value Clearing 'System'
  Chase's Response
  Euro Timeline (incl Conversion W/E) and Risk Reduction
- Summary - Chase Euro Solution
  The Proposal Process
  Support Required From Customer Service
  Questions - ALL THE WAY THROUGH !!

Euro Background

Late 1996–97

Monitoring of Maastricht convergence criteria

1998

- May 1998: first phase countries announced
- May 1998: bi-lateral exchange rates fixed
- June 1998: ECB Succeeds EMI

1999–2002

- Euro introduced
- ECU converts 1 to 1
- HVPS and most LVPS in euro
- Additional countries admitted

By mid 2002

- Withdrawal of legacy currency
- Full conversion to euro

Euro Background/What Changes

1/1/99 Establish euro as a currency and continuity of contract (jurisdiction?)

- No compulsion, no prohibition

Cross border credit transfer legislation (AUGUST 1999)

Exchange rates not fixed to euro until 31st Dec 1998

Official ECU ceases to exist on 1st Jan 1999, converts to euro on 1 to 1 basis

Euro Background/What Changes

euro is not a basket currency

NCUs are denominations of the euro

- Complex pan euro region high value clearing - approx 19 systems (compare to DEM and USD with 2 each) - all systems in euro and all take any NCU

Low value clearing remains country-specific and local securities markets continue to exist

Euro Background/What Changes

First euro working day - 4th Jan 1999

Reduced holidays and extended clearing hours

Break up or drop out of euro - long term only?

- Same currency in 11 countries

Complexity of the transitional period (when euro and NCU coexist)

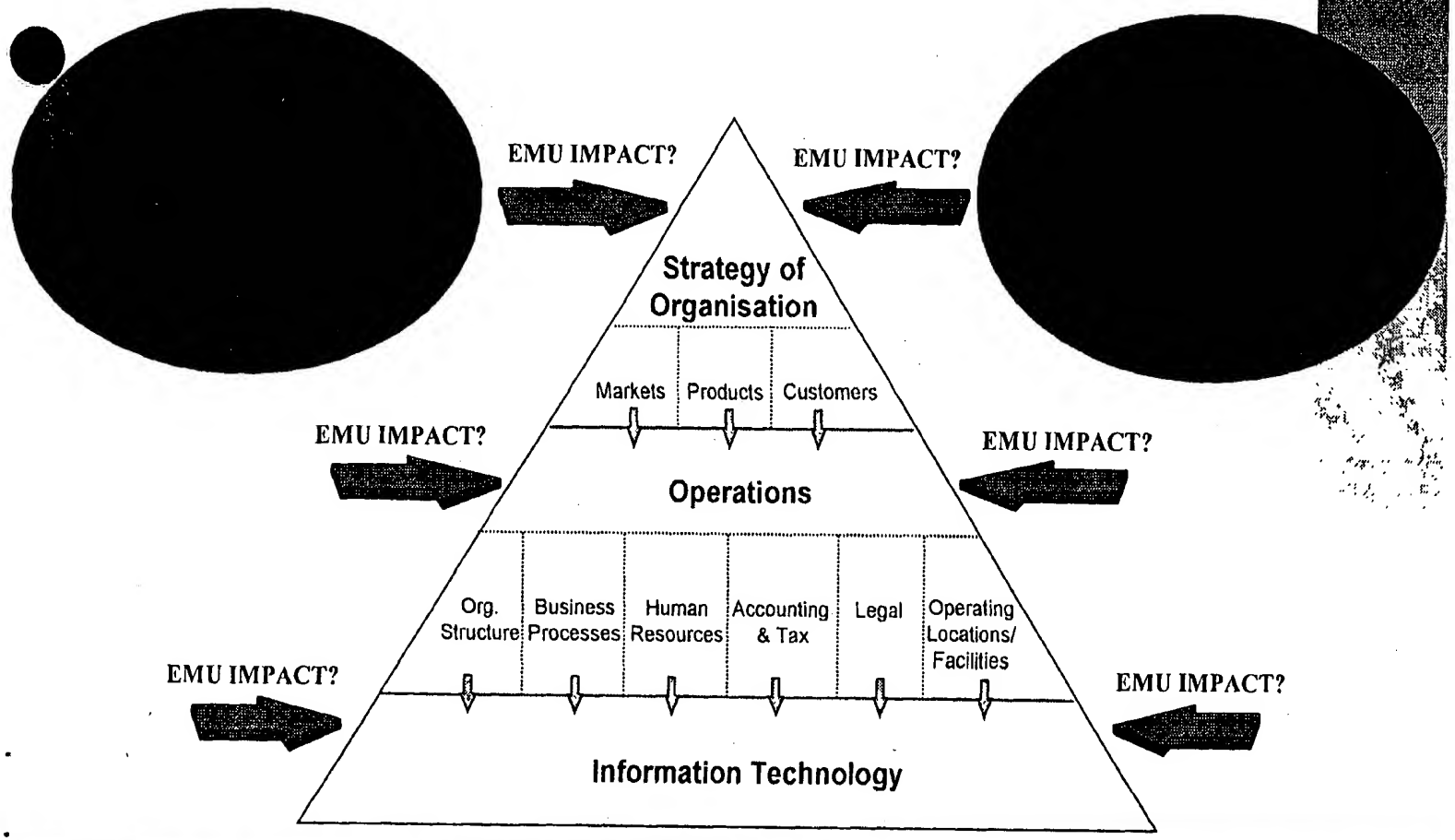
Euro Background/What Changes

Pressure on banking revenues

Banking consolidations and movement towards pan euro banks

Most institutions and corporates will review their banking arrangements ahead of 1st Jan 1999

EMU Has Profound Implications



Strategic and Mechanical Implications

Organisations should consider:

- Strategic market issues
  - ➢ customers, markets, competitors, services, pricing
- Strategic internal 'administration' implications
  - ➢ e.g. centralised payroll

Mechanical issues

- ➢ what account and transaction services are needed from banks to support proprietary businesses and services being provided to customers?
- ➢ what changes need to be made to react to environment changes?

Today's presentation concentrates on the mechanical issues

Chase's Preparations for EMU

Bankwide Actions

Steering committee and EMU project office

- provides umbrella under which business, functional and geographic teams operate

Strategic and mechanical review by all businesses and functions

Major technology and operations co-ordination across EMU and Year 2000, but separate teams

Chase's Preparations for EMU

Actions By Chase Treasury Solutions

Formal team structure

➤recognises strategic importance of the euro

Recognise the extent of cross-organisational impact

➤staff accordingly

Take actions necessary to be a major pan-euro bank/clearer

- euro will be fully integrated with our global services

➤euro is not an end in itself

Chase's Preparations for EMU

Actions By Chase Treasury Solutions

Development in progress to ensure top tier service from day 1

➢ but remaining close to customers/the market and make required changes

- Co-ordinate with other areas of the bank using cash services

Influence/lead the industry where uncertainty remains

Chase Treasury Solutions' Strategy

General and Euro Specific Goals:

- one of the 5 to 6 global payment providers by 2000 (including being a major euro/NCU clearer)
  one of the limited number of pan-euro banks (corporate emphasis)

Driver of Euro Opportunity:

same currency in multiple countries

- single country banks cannot invest to deliver pan-euro capabilities nor to become a major pan-euro clearer
- thus many banks and multi-country corporates will consider changing banking relationships

What Needed to Exploit The Opportunity?:

high value clearing (institutional and corporate)
in country accounts (corporate)
mass pay and cheque based products (corporate)

Primary Product Segments & Euro Needs

Institutional Clearing - could be banks, broker/dealers or equivalant. Now has DEM with CMB AG - becoming EUR with CMB AG

- ➢ significant existing customer base and great opportunity for new business
- ➢ needs comprehensive euro/NCU clearing service (from accounts in one location) which addresses all the euro/NCU issues and changes
- ➢ our primary aim is to get customers to open a euro accounts with us

Multicurrency Clearing with CMB UK

- ➢ significant existing customer base
- ➢ needs euro/NCU services as part of the overall multicurrency 'package' - delivered from accounts in one location
- ➢ existing customers may/will need to be convinced that we will be able to handle euro/NCU satisfactorily
- ➢ likely simply to want to add a euro account to those currently held

Primary Product Segments & Euro Needs

- Multicurrency Clearing with CMB UK (continued)
  - ➢ new customers will not buy simply because of euro/NCU
  - ➢ opportunity to extend relationship to include 'in-country', mass pay etc

- Limited existing In-country accounts but vital growth area - needed primarily by corporates for regulatory, taxation or domestic account purposes
  - ➢ pan-euro corporates require integrated and consistent account services in multiple countries, including high value, mass payment, cheque and liquidity services
  - ➢ likely to be subject to a response to an RFP driven by sales
  - ➢ opportunity to extend services provided to target names who have in-country accounts with us today

There will be exceptions to the above segments

Euro/NCU Related Sales Approaches

Institutional Clearing Sales Approach:

Number of Correspondents

- Currently, typically 1 or 2 primary cash correspondents per currency
  - ➢ i.e. 1-2 per country

With euro, this implies 15 to 20 euro cash correspondents

New Clearing Paradigm

Consider a FRF payment between 2 German banks:

- ➢ on 31st Dec 1998 (only via French clearing)
- ➢ on 4th Jan 1999 (via any of 19 clearing systems)

Euro/NCU Related Sales Approaches

Keep multiple correspondents?

How will you route payments?

➢ what system changes?

- Where will you tell counterparties to remit funds?

➢ are errors likely?

How will you fund multiple euro positions efficiently?

Different approach for NCUs and for euro?

Better to limit the number of correspondents?

This will encourage institutions to understand that their euro (and NCU) needs can be satisfied by one account at one bank (Chase) - amplified by our quality preparation/sophistication of solution.

BUT - DO NOT ENCOURAGE NCU CONSOLIDATION

DISCUSS SSI ISSUES

Euro/NCU Related Sales Approaches

Multicurrency Clearing Sales Approach:

- likely to add euro 'as another currency'
- but may well be interested in the euro high value details and need to cover other euro product impact e.g. on client access good opportunity for Chase because of the euro/NCU investments we are making, and good opportunity to extend into other services

Euro/NCU Related Sales Approaches

In-Country Account Services:

likely to be a new/incremental sale, subject to response to RFP

requires multiple account locations

likely to require mass payment and/or cheque based services

likely to require liquidity solutions to enable best use of balances in multiple location

- will be interested in the euro details

Approach to the Transitional Period

'Big bang' conversion to euro accounts (can only be for internal purposes because of no compulsion)?

Requires more up front effort than treating euro as another currency alongside NCU

- ➢ ledger in euros but continued obligation to pay NCU
- ➢ institutions will go 'big bang' earlier than corporates

- Consider a Hong Kong Bank or a Corporate holding FRF, NLG, PTE, EUR etc. accounts with one bank in one location:
  - ➢ easy payment routing and accurate receipt of funds
  - ➢ pooling or zero balancing for simple funding
- Many different options to be evaluated
  - ➢ e.g. low value payments and securities as required

SSI Implications ! - you Can go big bang without consolidation

Euro Business Impact

- Very Positive Recognition By The Market
  - ➢ one of the first banks to be talking details
  - ➢ one of the first banks to be quoting pricing
  - ➢ effective sales and marketing coverage e.g. forums globally, press coverage, brochures, advertising, client meetings, proposals
  - ➢ differentiated solution with the hub
  - ➢ on short list of nearly all deals of interest, including Broker Dealer

Broker Dealers

- ➢ very limited success for Chase and other clearing banks - B of A had very significant success
- ➢ Chase issues versus B of A - pricing, cut-offs and UK based accounts - first two resolved a little late - latter shouldn't be a problem (positioning issue)

Euro Business Impact

Institutional

- ➢ significant success - Asia (Japan) in lead but other regions following. Tough in Europe (euro zone)
- ➢ we are one of the top banks in winning business - ahead of B of A

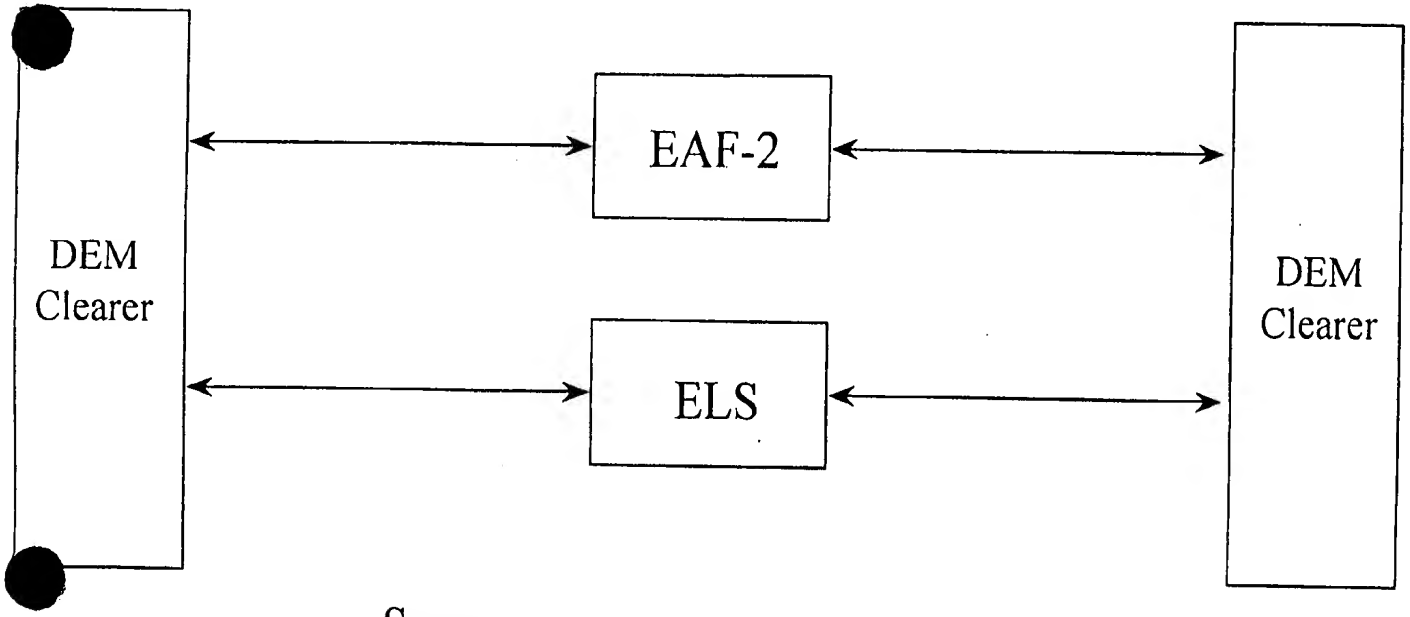
Corporate in UK

- ➢ essentially just adding euro account to existing portfolio of accounts
- ➢ no evidence of business wins/losses directly associated with euro/NCU clearing
- ➢ limited evidence of corporates aggressively exploiting the euro in terms of their banking relationships e.g. single country pool/sweep or increased demand for in country accounts

Corporate in FFT

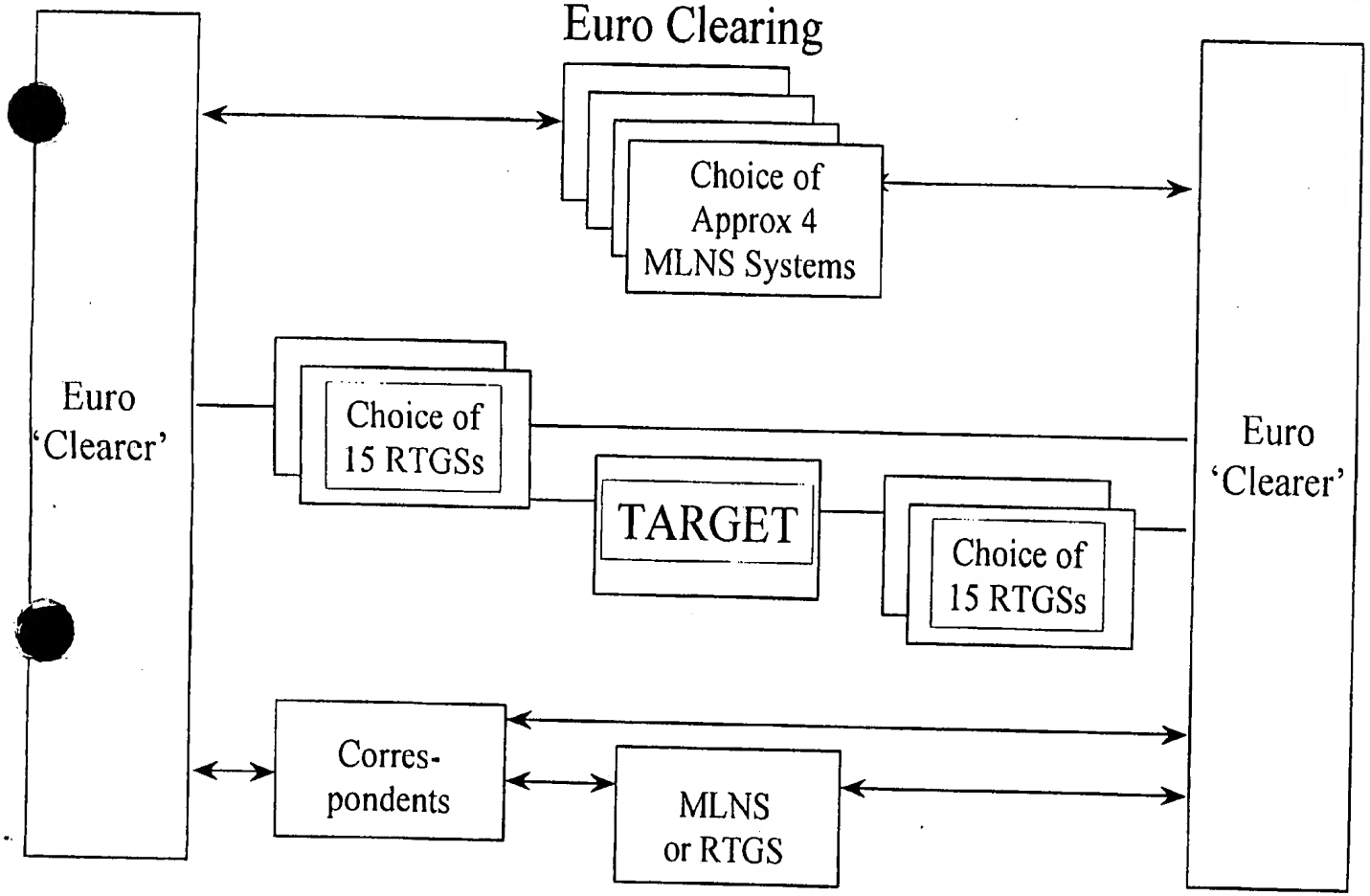
Euro High Value Clearing 'System'

DEM Clearing Today



Same:
Country of Currency
Country of Location of Clearers
Country of Location of Clearing

Euro High Value Clearing 'System'



· Currency, clearing banks and clearing systems in multiple countries

Euro High Value Clearing 'System'

- Approx. 19 euro high value clearing systems
  - ➢ all in euros, all carry all NCUs (but not ECU)

And Can use Correspondents?

Access clearing via which entity?

How will you manage flows?

Characteristics of Multilateral Net Settlement (MLNS)

- ➢ there are many variants
- ➢ need reasonably balanced flows

Characteristics of Real Time Gross Settlement (RTGS)

Collateral - opportunities/efficiency

- Intraday Liquidity - efficiency

Euro High Value Clearing 'System'

- Variable working hours for clearing systems?
  - ➢ harmonised: net settlement 07.00 to 16.00, RTGS 07.00 to 17.00 for customer payments and 17.00 to 18.00 for interbank settlement

  Variable working days for clearing systems?
  - ➢ largely harmonised to TARGET schedule

  Contingency of many types

- How to manage through the uncertain early days of euro?

euro clearers must consider and deliver solutions to all the above

and Chase has certainly done so

Chase Treasury Solutions Euro Response

Build on established base and use global expertise

Consider technology centres, systems, operations, customer service and legal entities separately

➢ find best solution for each

- Centralised technology centres

➢ 2 primary centres globally

Chase Treasury Solutions Euro Response

- Use common systems (same for Chase Germany, Italy, UK, Netherlands, Belgium, France) - euro changes needed once

- Operations centralised where it makes sense

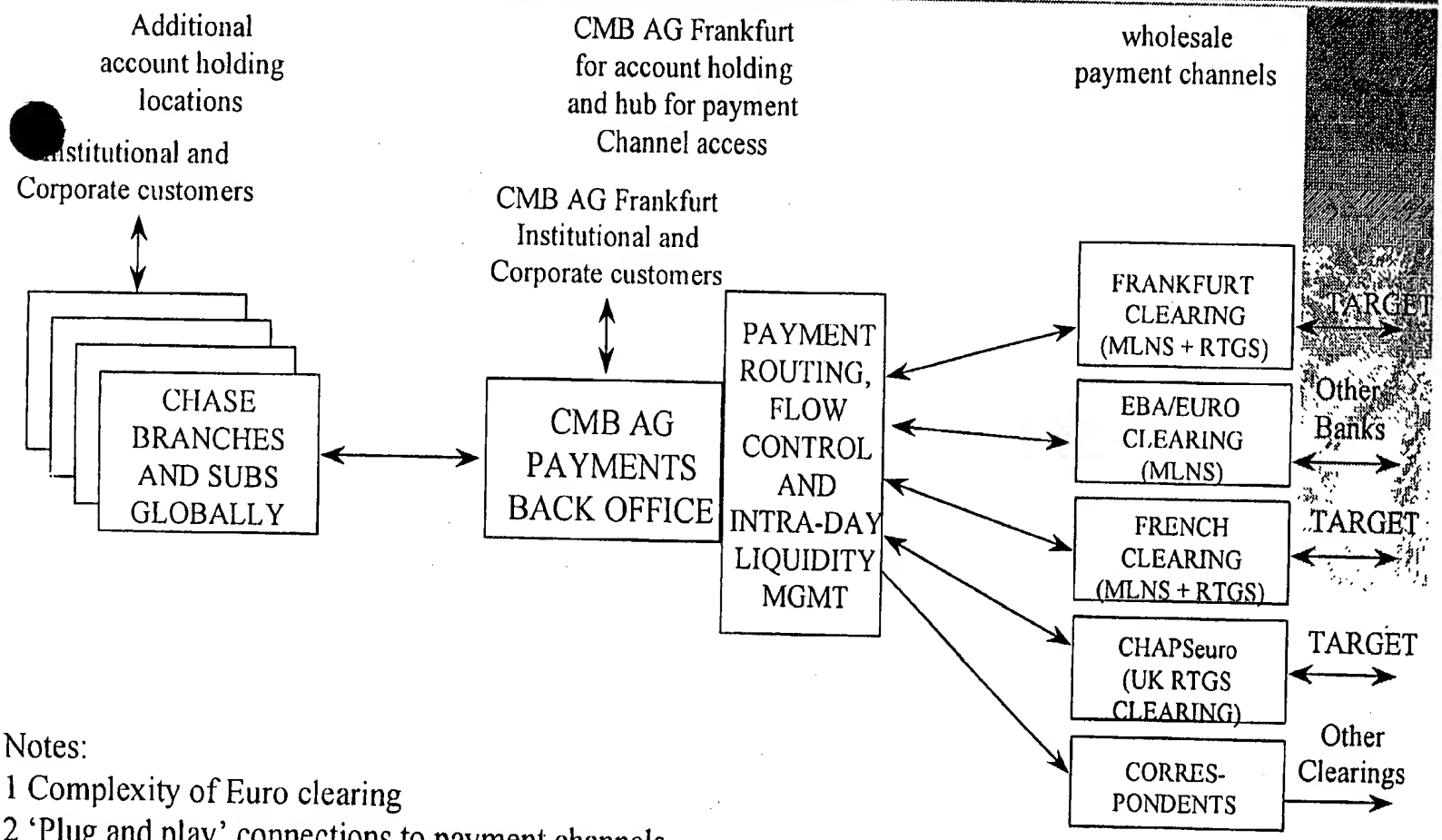
  Customer service in customers' language and time zone

- Most appropriate legal entities
  - ➢ many factors

- Review electronic messaging

  Review DEM clearing approach

Configuration of Euro Components



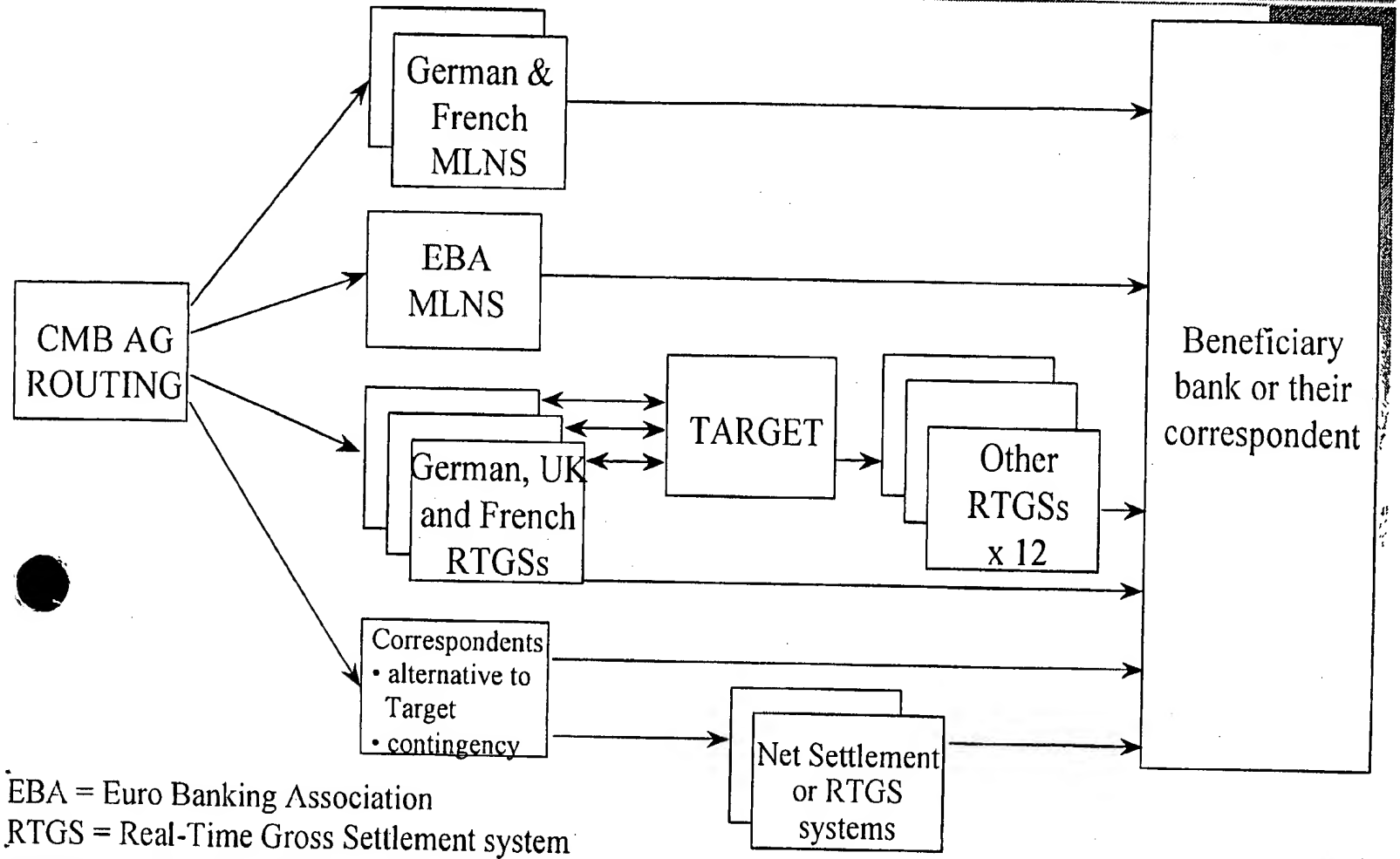
Notes:

1 Complexity of Euro clearing

2 'Plug and play' connections to payment channels

3 Chase's customers and rest of Chase insulated from uncertainty and complexity

Details of Euro High Value Clearing Access



EBA = Euro Banking Association
RTGS = Real-Time Gross Settlement system
TARGET = Trans-European Automated Real-time Gross settlement Express Transfer system

Chase's High Value Clearing

- Insulates customers from complexity and uncertainty
- Provides simple remittance instruction for customers

Hub enables easy payment routing and intraday liquidity management

➢ absolutely essential in the early days of the euro

Rapid reporting of information

Chase's High Value Clearing

- Covers holiday date and clearing time changes
- Multiple layers of contingency
  - ➢ easy to invoke from the hub
- Facilitates end of day interbank settlement
- Enables exploitation of collateral

Built on established base

Transitional and Liquidity Products

Driven by no compulsion, no prohibition - equivalent services for corporate and institutional - corporate are likely to use them for longer

Comprehensive Products and Services

- ➢ enable customers to migrate to the euro at a pace and in a way which suits them

- Account Options (but remember consolidation issue)
  - ➢ only NCU
  - ➢ only EUR
  - ➢ NCU and EUR

Transitional and Liquidity Products

Pay/Receive Options (but remember consolidation issue)

- EUR from NCU account
- NCU from EUR account
- etc

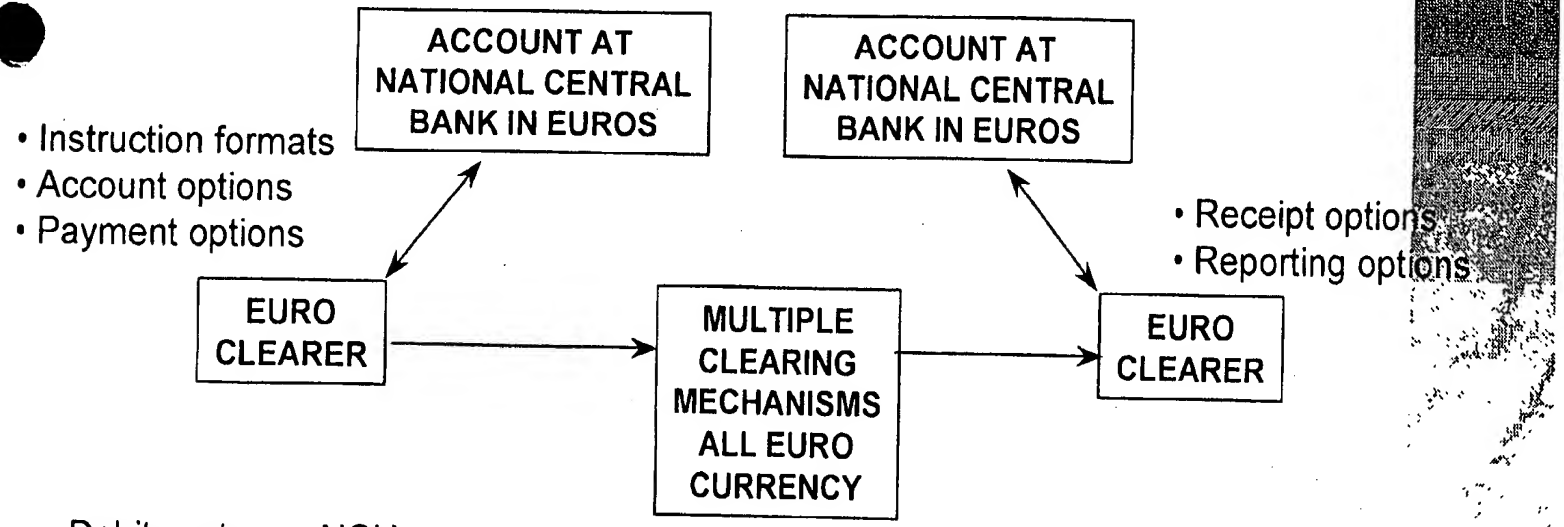
Reporting Options, e.g.

- report NCU information if NCUs are received into an EUR account
- dual currency reporting

Overnight Liquidity Products

- offer the liquidity benefits of the euro irrespective of the customer's migration approach

Transaction Flows and Details of SWIFT's E
Related Information (ERI)



Debit customer NCU or euro Account

Credit euro nostro for clearing system selected

Message through clearing:

- MT100 or 202 format or equivalent
- EUR in field 32
- NCU in ERI in field 72

Debit euro nostro depending on clearing through which funds received

Credit customer based on agreed approach

Other Product and Service Details

- ERI implementation - but not MT103 on 1/1/99 for euro/NCU
- competitive cut off times and interest rates for corporate and institutional
  - ➢ compare to accounts on CMB UK today
  - ➢ compare to Institutional accounts in FFT today

Interest calculation on euro and NCU

- ➢ same base rate and spread
- ➢ pooling and sweeping products amended to treat euro and NCUs as one currency
- ➢ harmonise interest rates

Cut-off Times (all in CET)

- ➢ Institutional - preferential 16.45 ST/16.30 Repair, benchmark 16.15/16.00
- ➢ Corporate - preferential 16.15 ST/16.00 Repair, benchmark 15.45/15.30
- ➢ Middle Market - benchmark 15.15 Repair
- ➢ Manual transactions - 2 hours ahead

Other Product and Service Details

Service on all 'target' days and throughout 'target' hours.

➢ Requires Treasury, technology, operations, customer service, daily MT940/950 and EB reporting

- MT900/910/940 and EB including ERI

Allow customers to select RTGS

➢ but little usage expected

Unprecedented level of SSI/repetitive line changes

➢ Chase team already set upAccount numbers are being assigned and accounts are being set up

➢ but SWIFT do not expect EUR MT940/950 until 1st Jan 1999

Other Product and Service Details

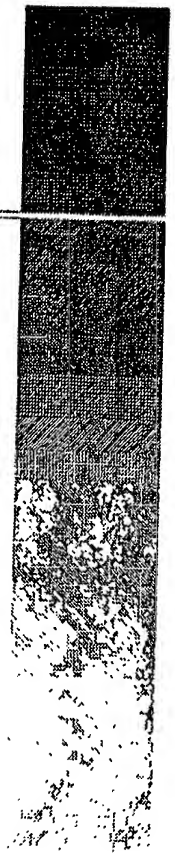
Legislation on cross border credit transfers

- ➢ legally applies to equivalent of less than ECU 50,000
- ➢ applies to EU banks and all EU currencies
- ➢ Chase will apply to all EU payments
- ➢ partially implemented already

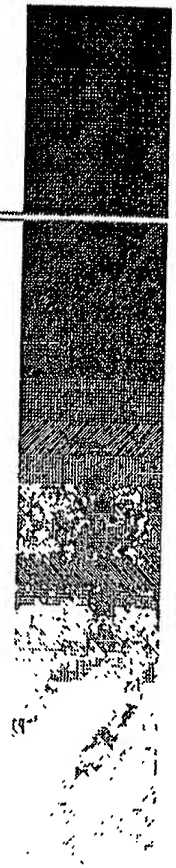
Appropriate changes to electronic banking

- ➢ emphasis on reporting

- Advice to receive (via SWIFT MT210 and EB)



The Euro Timeline and Risk Reduction



Now and continuing

- ➢ customer meetings and forums; newsletters and brochures
- ➢ detailed communication

• June

- ➢ Proposals sent to customers

• June - August

- ➢ Chase's internal and external integration testing

July - December

- ➢ SSI actions - by all; continued sales activities by all

September/October/November

- ➢ dress rehearsals for conversion weekend

October

- ➢ reimplemented changed programs, including holding transactions for value 4th January 1999 onwards

The Euro Timeline and Risk Reduction

Last Working Day of 1998 for Relevant Branch

- normal end of day processing and reporting

1st January 1999

- conversion rates to euro fixed by end of 31st Decemher
- legal changes come into force
- account changes made
- system parameters set
- interest capitalisation
- balance transfer

Balance and transaction reporting for 1st January 1999

The Euro Timeline and Risk Reduction

1st to 3rd January

- process transactions as far as possible
- reduce risks for 4th Jan,
- expect transactions from customers,
- coverage provided by customer service, operations and systems

Plan for peak in workload in early 1999

Provide ongoing support as required

- depends on customers' conversion timing to the euro

Summary - Chase euro Solution

- Efficient, effective and comprehensive euro (and NCU) clearing using a hub approach

⇨insulates you from the complexity of the euro

Transitional capabilities

⇨you can migrate to the euro at your own pace and in you own way (market risk with consolidation in early days - we can support technically)

- Overnight liquidity products which treat euro and NCU as one

⇨you can achieve the liquidity benefits of the euro whatever your migration approach

Summary - Chase euro Solution

Built on Chase's major existing DEM clearing business and platform, and fully uses Chase's global payments expertise

⇨Fully tested solution, contingency and comprehensive products from January 1, 1999

Partner with Chase

⇨minimise the operational difficulties

⇨concentrate on the euro opportunities

The Proposal Process

collate database of significant names - 250 institutional, 850 corporate

prepare standard proposal, institutional and corporate

- tailored cover letter

frequently asked questions (FAQ)

diagnostic - what information do sales need to collect from customers?

follow up by sales

Support Required From Customer Service

convey to customers that Chase is putting tremendous effort into euro

convery the high level sales messages on the previous few pages

pass on leads to the sales organisation

discuss and learn euro details

if you don't know the answer to a customer's question, don't guess

understand the proposal process and review the material, customers may discuss this with you

don't expect to understand everything about the euro - it's a very broad topic !!

Summary of Today

Euro Background/What Changes

•Response to EMU? - Strategic and Mechanical

•Chase's Preparations for EMU

•Primary Product Segments & Euro Needs

Euro/NCU Sales Approaches

•Approach to the Transitional Period

Euro High Value Clearing 'System'

•Chase's Response

•Euro Timeline (including Conversion Weekend) and Risk Reduction

•Summary - Chase Euro Solution

•The Proposal Process

Support Required From Customer Service

•Questions

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